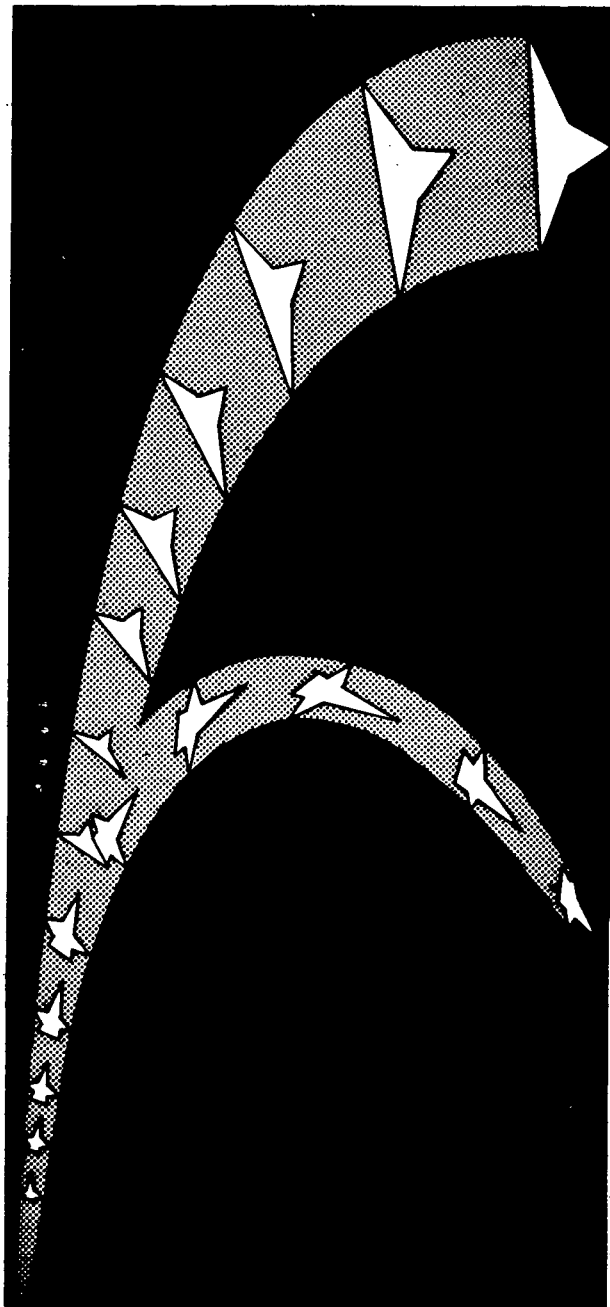


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DMS-DR-1255
NASA CR-120,058
MARCH 1973



SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER



—SPACE SHUTTLE—

AN INVESTIGATION OF THE LOAD DISTRIBUTION OVER THE SRB AND EXTERNAL TANK OF A 0.004 SCALE MODEL OF THE 049 SPACE SHUTTLE LAUNCH CONFIGURATION

by

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MSFC 14-INCH TRISONIC
WIND TUNNEL

Marshall Space
Flight Center

N A S A

This document should
be referenced as NASA
CR-120,058

NASA-CR-120058) SPACE SHUTTLE: AN
INVESTIGATION OF THE LOAD DISTRIBUTION
OVER THE SRB AND EXTERNAL TANK OF A
0.004 SCALE MODEL OF THE 049 (Chrysler
Corp.) 969 p HC \$50.50
N73-23872
Unclass 03714
G3/31
CSC 22B

959

SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT

CONFIGURATION: 0.004 SCALE MODEL OF SPACE SHUTTLE 049 LAUNCH CONFIGURATION
TEST PURPOSE: PRESSURE DISTRIBUTION OVER THE SRB AND EXTERNAL TANK OF
LAUNCH VEHICLE.

TEST FACILITY: NASA/MSFC 14 x 14 INCH TRISONIC TUNNEL
TESTING AGENCY: LOCKHEED-HUNTSVILLE
TEST NO. & DATE: MSFC TWT 543, AUG 11 TO SEPT 1, 1972
FACILITY COORDINATOR: Jim Weaver, NASA/MSFC
PROJECT ENGINEER(S): Robert A. Lott, IMSC/HREC
P. Ramsey, NASA/MSFC

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CONTRACT NAS 8-4016

AMENDMENT 182

DRL 297 - 84a

This report has been prepared by Chrysler Corporation Space Division under a Data Management Contract to the NASA. Chrysler assumes no responsibility for the data presented herein other than its display characteristics.

22
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TABLE OF CONTENTS

	PAGE
ABSTRACT	1
NOMENCLATURE	2
CONFIGURATIONS INVESTIGATED	6
TEST FACILITY DESCRIPTION	7
MODEL DESCRIPTION	8
DATA REDUCTION	10
REFERENCES	12
TABLES	
I TEST CONDITIONS	13
II DATA SET COLLATIONS	14
III DIMENSIONAL DATA	16
IV INDEX OF MODEL FIGURES	21
V INDEX OF DATA FIGURES	22
FIGURES	
MODEL	27
DATA	33

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AN INVESTIGATION OF THE LOAD DISTRIBUTION OVER
THE SRB AND EXTERNAL TANK OF A 0.004 SCALE MODEL OF
THE 049 SPACE SHUTTLE LAUNCH CONFIGURATION

By R. Lott and P. Ramsey

ABSTRACT

The National Aeronautics and Space Administration has established the general space shuttle launch configuration geometry and is presently in the process of better defining the aerodynamic characteristics and load distribution. In support of this effort, a study was conducted in the MSFC 14 x 14-Inch Trisonic Wind Tunnel to determine the load distribution over the external tank and SRB's of the launch configuration. The external tank was sting-supported and the SRB's and orbiter mounted directly to the external tank. The external tank was instrumented with 152 pressure orifices and the SRB's contained 78 orifices. The pressure data were obtained for various combinations of the three geometric components (external tank, SRB's and orbiter) as the gap size between the external tank and SRB's, Mach number, angle of attack and angle of sideslip were varied. Gap size was varied from 0.025 to 0.10, angle of attack range was -10° to $+10^{\circ}$ and sideslip angles were from -10 to $+10^{\circ}$. Mach numbers considered ranged from 0.8 to 1.96.

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
P		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$ _{REF}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal force coefficient; F_N/qS
C_A	CA	axial force coefficient; F_A/qS
C_{A_b}	CAB	base axial force coefficient; $\begin{bmatrix} -1 \end{bmatrix} \begin{bmatrix} (p_b - p_\infty)/q \end{bmatrix} (A_b/S)$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_m	CLM	pitching moment coefficient; $M_y/qS l_{ref}$
C_y	CY	side force coefficient; F_y/qS
C_n	CYN	yawing moment coefficient; $M_z/qS b_{ref}$
C_l	CBL	rolling moment coefficient, $M_x/qS b_{ref}$

NOMENCLATURE (Continued)

(Additions for MSFC Test 543)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N'	DCN/DX	local normal force coefficient $\partial C_N / \partial (x/\bar{c})$
C_A'	DCA/DX	local axial force coefficient $\partial C_A / \partial (x/\bar{c})$
C_Y'	DCY/DX	local side force coefficient $\partial C_Y / \partial (x/\bar{c})$
C_{m_N}		local pitching moment coefficient due to normal force $[\partial C_m / \partial (x/\bar{c})]_{C_N}$, referenced to the launch vehicle MRP.
C_{m_A}		local pitching moment coefficient due to axial force $[\partial C_m / \partial (x/\bar{c})]_{C_A}$, referenced to the component longitudinal centerline.
C_{n_Y}		local yawing moment coefficient due to side force $[\partial C_n / \partial (x/\bar{c})]_{C_Y}$, referenced to the launch vehicle MRP.
C_{n_A}		local yawing moment coefficient due to axial force $[\partial C_n / \partial (x/\bar{c})]_{C_A}$, referenced to the component longitudinal centerline.
$C_{N\alpha}'$	CNDXDA	change in local normal force with α ; $\frac{\partial C_N'}{\partial \alpha}$
$C_{Y\beta}'$	CYDXDB	change in local side force with β ; $\frac{\partial C_Y'}{\partial \beta}$
α_i	ORBINC	orbiter incidence angle relative to the external tank longitudinal G ; positive when nose up; deg.
Δg	SRBGAP	gap size between external tank and SRB, inches model scale.
x_s		distance between the external tank nose and the orbiter nose measured along the tank longitudinal centerline, inches model scale.
ϕ_s	PHIS	radial position of solid rocket booster relative to the vertical plane, deg.

NOMENCLATURE (Concluded)

(Additions for MSFC Test 543)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
SRB position	SRBPOS	radial position of SRB (See Figure 6), position code number.
x/\bar{c}	X/LREF	longitudinal distance measured from the nose of the external tank and divided by orbiter wing m.a.c.
ϕ	PHI	radial position angle measured from the vertical plane, degrees; first quadrant is upper left looking forward.

CONFIGURATIONS INVESTIGATED

The launch configuration consists of the double delta wing orbiter with one large external hydrogen-oxygen tank and two solid rocket boosters (SRB) underslung beneath the orbiter (see Figure 2). Configuration components investigated were:

Symbol

01	baseline orbiter (less abort solid rocket motors)
02	baseline orbiter
T1	346-in. diam. external tank with 22-deg nosecone (baseline) (with structural rings)
S1	156-in. diam. solid rocket motor with 17-deg nosecone (baseline)

Combinations of these components as they were investigated are shown in Table II entitled Dataset Collations.

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Trisonic Wind Tunnel is an intermittent blowdown tunnel which operates by high pressure air flowing from storage to either vacuum or atmospheric conditions. A Mach number range from .2 to 5.85 is covered by utilizing two interchangeable test sections. The transonic section permits testing at Mach 0.20 through 2.50, and the supersonic section permits testing at Mach 2.74 through 5.85. Mach numbers between .2 and .9 are obtained by using a controllable diffuser. The range from .95 to 1.3 is achieved through the use of plenum suction and perforated walls. Mach numbers of 1.44, 1.93 and 2.50 are produced by interchangeable sets of fixed contour nozzle blocks. Above Mach 2.50 a set of fixed contour nozzle blocks are tilted and translated automatically to produce any desired Mach number in .25 increments.

Air is supplied to a 6000 cubic foot storage tank at approximately -40°F dew point and 500 psi. The compressor is a three-stage reciprocating unit driven by a 1500 hp motor.

The tunnel flow is established and controlled with a servo actuated gate valve. The controlled air flows through the valve diffuser into the stilling chamber and heat exchanger where the air temperature can be controlled from ambient to approximately 180°F. The air then passes through the test section which contains the nozzle blocks and test region.

Downstream of the test section is a hydraulically controlled pitch sector that provides a total angle of attack range of 20° ($\pm 10^\circ$). Sting offsets are available for obtaining various maximum angles of attack up to 90°.

MODEL DESCRIPTION

A sketch of the launch configuration model geometry is shown in Figure 2 and the overall model dimensions are given in Table III. The model is 0.004 scale and is comprised of three basic geometric components: (1) the orbiter hydrogen/oxygen fuel tank; (2) two solid rocket boosters (SRB's); and (3) the orbiter configuration. The orbiter and SRB's are fastened to the external tank which is sting supported. The axial location of the orbiter is fixed with respect to the external tank (i.e., $X_g = 2.803$ in., Figure 2); however, orbiter incidence was varied during the test. The axial location of the SRB's is fixed with respect to the external tank; however, the SRB's were rolled about their longitudinal axis in 15 deg increments to vary the pressure orifice locations. Spacers were used to vary the gap between the external tank and SRB's. The bolt pattern for fastening the orbiter and SRB's to the external tank is shown in Figure 3.

The SRB's and external tank are fabricated from 2651 mm Stycast material. The orbiter model which was used in tests TWT 542 and 544 is fabricated from aluminum and stainless steel. The SRB's contain 78 pressure orifices (39 on both the right and left SRB's) and the external tank contains 152 pressure orifices, for a total of 230.

The orifice pattern on the external tank is presented in Figure 4. Since the model is symmetric about the X-Z plane, only the left side (as viewed from the rear) or quadrants I and II are instrumented. Nominally, 15 orifices are aligned in axial rows with 12 in each radial ring. In quadrant I, the orifices are located every 15 degrees and every 18 degrees in quadrant II. However,

because of the limitations imposed by model size and the maximum number of orifices available, there are a number of exceptions to the nominal orifice pattern. These occur primarily in the radial direction in the nose region and axially for orifices located on the cylindrical portion of the external tank.

The orifices on the SRB's are arranged along 4 axial rows 90 degrees apart. Three of the rows have 12 orifices and the fourth has 3 orifices located on the nose (Figure 5).

By using data from both right and left SRB's and the various combinations of bolt patterns for attaching the SRB's to the external tank, the pressure distribution over the SRB's can be obtained in 15 degree radial increments. This, however, would require 6 separate runs. In order to reduce the tunnel time required for the test, the SRB's were tested in positions I, III, II + 180, and III + 180. Figure 6 identifies the radial location of the orifices for the various bolt positions. Therefore, only four tunnel runs were required to obtain a set of data for one test condition and model orientation. The set of data is therefore comprised of data from both the left and right SRB obtained from 4 runs along with data from the external tank obtained from the run with the SRB location in position I.

DATA REDUCTION

All static pressures were reduced to coefficient form referenced to freestream static and dynamic pressure. The pressure tap locations are referenced longitudinally to the nose of the external tank for both the tank and the SRB, and non-dimensionalized by the orbiter wing M.A.C.; the radial positions are measured from the top centerline, counterclockwise looking forward on the external tank and the left SRB. All SRB data for the yawed model is referenced to the left SRB.

The pressure coefficient data was integrated using the Chrysler Corporation's SADSAC program to obtain the longitudinal distributions of the normal and side force coefficients, and the total component force and moment coefficients, for the external tank and the SRB. The following equations were used for the integrations of local force and moment coefficients:

$$C'_{N_j} = - \frac{\bar{c}}{S} \sum_{\phi_1=0^{\circ}}^{\phi_n=360^{\circ}} \left(\frac{C_{p_i} + C_{p_{i+1}}}{2} \right) (r_j \sin \phi_{i+1} - r_j \sin \phi_i)$$

$$C'_{m_{N_j}} = C'_{N_j} \left[\frac{XMRP}{\bar{c}} - \left(\frac{x}{\bar{c}} \right)_j \right]$$

$$C'_{Y_j} = - \frac{\bar{c}}{S} \sum_{\phi_1=0}^{\phi_n=360^{\circ}} \left(\frac{C_{p_i} + C_{p_{i+1}}}{2} \right) (r_j \cos \phi_{i+1} - r_j \cos \phi_i)$$

$$C'_{m_{Y_j}} = C'_{Y_j} \left[\frac{XMRP}{\bar{c}} - \left(\frac{x}{\bar{c}} \right)_j \right] \cdot \frac{\bar{c}}{b}$$

$$C'_{A_j} = \frac{\bar{c}}{S} \sum_{\phi_1=0}^{\phi_n=360^{\circ}} \left(\frac{C_{p_i} + C_{p_{i+1}}}{2} \right) (r_j \phi_{i+1} - r_j \phi_i) \tan \delta$$

$$C'_{m_{A_j}} = \frac{1}{S} \sum_{\phi_1=0}^{\phi_n=360^{\circ}} \left(\frac{C_{p_i} r_j \cos \phi_i + C_{p_{i+1}} r_j \cos \phi_{i+1}}{2} \right) (r_j \phi_{i+1} - r_j \phi_i) \tan \delta$$

$$C_{nA_j}' = - \frac{\bar{c}}{S_b} \sum_{\phi_1=0}^{\phi_n=360^\circ} \left(\frac{C_{p1}r_j \sin \phi_1 + C_{p1+1}r_j \sin \phi_{1+1}}{2} \right) (r_j \phi_{1+1} - r_j \phi_1) \tan \delta$$

δ = semi-vertex angle of nose cone

For the external tank at zero sideslip, the integrations from 0 to 360° were evaluated as twice the integration value for 0 to 180°. For the external tank in the yawed condition, the pressures for the intermediate radial positions on the right side of the tank were obtained from the left side at the equal and opposite sideslip angle. The integrations for C_N' , C_{mN}' , C_Y' , and C_{Ny}' , were performed for all pressure tap stations on the afterbodies of the tank and SRB, and for selected tap stations on the nose cones of both components. Pressure data at $x/\bar{c} = 0.460$ and 0.682 on the external tank, and at $x/\bar{c} = 0.679$ on the SRB, was not used in the integrations for normal and side force because the number of taps at these stations was considered too few to accurately determine the net forces across the section.

Interpolation error was judged to have less effect on the integration for local axial force, and so all stations on the nose cone were used in the integration for C_A' and the resulting moments. At stations where no data was obtained for $\phi = 0$ on the SRB, or $\phi = 0$ and 180° on the tank, the radial distributions were extended to the limits of integration by assuming a constant C_p value for the first and final segments. The pressure data was also extended longitudinally by the same method to obtain the local force coefficients for stations at the center of the leading radius and at the base of both bodies. These added stations served as the limits of integration on the force coefficient distributions and are included in the force distribution plots. The plots of the pressure data show only acquired data.

The local force and moment coefficients were integrated using the following general equation:

$$I = \sum_{j=1}^{j=n} \left[\frac{I_j' + I_{j+1}'}{2} \right] \left[\left(\frac{x}{\bar{c}} \right)_{j+1} - \left(\frac{x}{\bar{c}} \right)_j \right]$$

That is, if $I_j' = C_N'_j$ ($j = 1$ to n), then $I = I(C_N') = C_N$, the total integrated normal force coefficient for the model component (external tank or SRB).

The final component force and moment coefficients are obtained as follows:

$$C_N = I (C_N')$$

$$C_{A_f} = I (C_A')$$

$$C_Y = I (C_Y')$$

$$C_m = I (C_{m_N}') + I (C_{m_A}') - \left(\frac{\Delta Z}{\bar{c}}\right) (C_{A_f})$$

$$C_n = I (C_{n_Y}') + I (C_{n_A}') - \left(\frac{\Delta Y}{\bar{c}}\right) (C_{A_f})$$

where ΔZ = vertical distance from the MRP to the component longitudinal C.L., positive for C.L. below MRP; inches.

ΔY = lateral distance from tank C.L. to the SRB C.L., positive for the left SRB.

These equations yield the total component force and moment coefficients in the body axis system.

The moment coefficients for both tank and SRB are referenced to an MRP located 4.226 inches aft of the tank nose and 0.248 inches above the centerline of the external tank in the model plane of symmetry. The reference area and lengths are as follows:

$$S = S_{REF} = \text{reference area} = 7.880 \text{ in}^2$$

$$\bar{c} = L_{REF} = \text{longitudinal reference length} = 2.028 \text{ in.}$$

$$b = B_{REF} = \text{reference span} = 4.460 \text{ in.}$$

REFERENCES

1. Simon, Erwin, "The George C. Marshall Space Flight Center's 14 x 14-Inch Trisonic Wind Tunnel Handbook, "NASA TMX-53185, 22 December 1964.

TABLE I.

[illegible]

TABLE II.

TEST : MSFC 543		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE : POST TEST					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)									
		α	β	SRB POS.	α_1	Δg		0.80	0.95	1.10	1.20	1.46	1.96				
R70 000	T ₁	A	O	—	—	—		265- 262				260- 264	270- 274	285- 289			
600	T ₁ O ₁			—	-1.5°	—		250- 254				255- 259	275- 279	280- 284			
500	T ₁ S ₁			1	—	.025						175- 179					
				3	—							170- 174					
				5	—							56- 60					
				6	—							61- 65					
100	T ₁ S ₁ O ₁ (WITHOUT) (ABORT SRB)			1	-1.5°			150- 154	145- 149			140- 144	125- 129	110- 114			
		A		3				155- 159	160- 164			165- 169	120- 124	115- 119			
		B		4					3- 4			1- 2					
		A		5				20- 24	5- 9			10- 14	91- 95	96- 100			
200				6				35- 39	25- 29			30- 34	86- 90	101- 105			
				1	0°							180- 184	130- 134				
				3								185- 189	135- 139				
				5								71- 75	76- 80				
				6								66- 70	81- 85				

1 7 13 19 25 31 37 43 49 55 61 67 75 76

α OR β SCHEDULES

COEFFICENTS

A) -10°, -4°, 0°, 4°, 10°

B) 10°, -10°

IDVAR (1) IDVAR (2) NDV

TABLE II. (Continued)

[illegible]

TABLE III. (CONTINUED)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - BLGENERAL DESCRIPTION : BASIC BODY

DRAWING NUMBER : _____

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length	<u>1315 in.</u>	<u>(0.004) 5.260 in.</u>
Max Width (P.L. BAY/REAR END)	<u>208/220 in.</u>	<u>0.832/0.880 in.</u>
Max Depth	<u>235 in.</u>	<u>0.940 in.</u>
Fineness Ratio (LENGTH/P.L. BAY)	<u>6.32</u>	<u>6.32</u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>---</u>	<u>---</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>6250 ft²</u>	<u>14.40 in²</u>
Base (PROJECTED)	<u>317.7 ft²</u>	<u>0.732 in²</u>

TABLE III. (CONTINUED)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - S1GENERAL DESCRIPTION : SOLID ROCKET MOTOR (BASELINE DIA.)

DRAWING NUMBER :

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1743 in.</u>	<u>6.972</u>
Max Width	<u>156 in.</u>	<u>0.624 in.</u>
Max Depth	<u>156 in.</u>	<u>0.624 in.</u>
Fineness Ratio	<u>11.17</u>	<u>11.17</u>
Area	<u></u>	<u></u>
Max. Cross-Sectional	<u>132.5 ft²</u>	<u>0.306 in²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base	<u>132.5 ft²</u>	<u>0.306 in²</u>

TABLE III.
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - T1

GENERAL DESCRIPTION : HYDROGEN-OXYGEN TANK (BASELINE DIAMETER)

DRAWING NUMBER : _____

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1876.75 in.</u>	<u>7.507 in.</u>
Max Width	<u>346 in.</u>	<u>1.384 in.</u>
Max Depth	<u>346 in.</u>	<u>1.384 in.</u>
Fineness Ratio	<u>5.42</u>	<u>5.42</u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>652.95 ft²</u>	<u>1.504 in²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base	<u>652.95 ft²</u>	<u>1.504 in²</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: "V" TAIL STABILIZER

GENERAL DESCRIPTION: ORBITER (THE FOLLOWING DIMENSIONS ARE REPRESENTATIVE OF
THE TWO VERTICAL STABILIZERS i.e., PER SIDE)

DRAWING NUMBER: _____

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area

Planform

Wetted

Span (equivalent)

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Toe-In Angle

Cant Angle

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Wing Sta. 0.0)

Tip, (equivalent)

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section

Root

Tip

EXPOSED DATA

Area

Span, (equivalent)

Aspect Ratio

Taper Ratio

Chords

Root

Tip

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

5° WEDGE (60/40)

5° WEDGE (60/40)

5° WEDGE (60/40)

5° WEDGE (60/40)

TABLE III. (CONTINUED)

MODEL COMPONENT: W4GENERAL DESCRIPTION: WING (INCLUDING GLOVE)

DRAWING NUMBER: _____

DIMENSIONS:TOTAL DATAFULL-SCALEMODEL SCALE

(0.004)

Area		
Planform BASIC/GLOVE	3420/1187 ft ²	7.880/2.735 in. ²
Wetted BASIC/GLOVE	4925/819 ft ²	11.347/1.887 in. ²
Span (equivalent)	1115 in.	4.460 in.
Aspect Ratio	2.5/1.9	2.5/1.9
Rate of Taper	---	---
Taper Ratio	0.20/0.10	0.20/0.10
Dihedral Angle, degrees	7°	7°
Incidence Angle, degrees	1.5°	1.5°
Aerodynamic Twist, degrees	---	---
Toe-In Angle	---	---
Cant Angle	---	---
Sweep Back Angles, degrees		
Leading Edge BASIC/GLOVE	35°/ 75°	35°/ 75°
Trailing Edge	-19.6°	-19.6°
0.25 Element Line	---	---
Chords:		
Root (Wing Sta. 0.0) BASIC/GLOVE	736/720 in.	2.944/2.880 in.
Tip, (equivalent)	147 in.	0.588 in.
MAC (BASIC)	507 in.	2.028 in.
Fus. Sta. of .25 MAC	---	---
W.P. of .25 MAC	---	---
B.L. of .25 MAC	217 in.	0.868 in.
Airfoil Section		
Root	0008-64	0008-64
Tip	0008-64	0008-64
<u>EXPOSED DATA</u>		

Area BASIC/GLOVE	1218.59/162.55 ft ²	2.806/0.374 in. ²
Span, (equivalent)	453.5 in.	1.814 in.
Aspect Ratio	---	---
Taper Ratio	---	---
Chords		
Root BASIC/GLOVE	626.87/404.74 in.	2.507/1.619 in.
Tip	147 in.	0.588 in.
MAC	---	---
Fus. Sta. of .25 MAC	---	---
W.P. of .25 MAC	---	---
B.L. of .25 MAC	---	---

TABLE IV.
INDEX OF MODEL FIGURES

FIGURE	DESCRIPTION	PAGE
1	Axis System	27
2	Baseline Launch Vehicle	28
3	Bolt Pattern for Attaching SRB's to External Tank	29
4	External Tank Pressure Orifice Locations	30
5	SRB Pressure Orifice Locations	31
6	Composite of Radial Locations of Pressure Orifices on SRB for Various Bolt Patterns	32

TABLE V. INDEX OF DATA FIGURES

TITLE	CONFIGURATION	PLOT TYPE	CONDITIONS VARYING	PAGES
<u>Part A - Pressure Distributions</u>				
Longitudinal Distributions of External Tank Pressures	T1	CP VS. X/LREF	PHI, ALPHA, MACH	1-60
	T101	CP VS. X/LREF	PHI, ALPHA, MACH	61-120
	T1S1	CP VS. X/LREF	PHI, ALPHA	121-135
	T1S101	CP VS. X/LREF	PHI, ALPHA, MACH, ORBINC	136-240
	T1S101	CP VS. X/LREF	PHI, BETA, MACH, ALPHA	241-285
Longitudinal Distribution of SRB Pressures	T1S1	CP VS. X/LREF	PHI, ALPHA	286-315
	T1S101	CP VS. X/LREF	PHI, ALPHA, MACH, ORBINC	316-525
	T1S101	CP VS. X/LREF	PHI, BETA, MACH, ALPHA	526-615
Radial Distribution of External Tank Pressures	T1	CP VS. PHI *	X/LREF, ALPHA MACH	616-627
	T101	CP VS. PHI *	X/LREF, ALPHA MACH	628-639
	T1S1	CP VS. PHI *	X/LREF, ALPHA	640-642

* See note on page 23.

TABLE V. - Continued.

TITLE	CONFIGURATION	PLOT TYPE	CONDITIONS VARYING	PAGES
Radial Distribution of External Tank Pressures	TLS101	CP VS. PHI *	X/LREF, ALPHA, MACH, ORBINC	643-663
	TLS101	CP VS. PHI *	X/LREF, BETA, ALPHA	664-672
Radial Distribution of SRB Pressures	TLS1	CP VS. PHI *	X/LREF, ALPHA	673-675
	TLS101	CP VS. PHI *	X/LREF, ALPHA, MACH, ORBINC	676-696
	TLS101	CP VS. PHI *	X/LREF, BETA, ALPHA	697-705
Effect of SRBGAP on External Tank Pressures	TLS101	CP VS. X/LREF	SRBGAP, PHI, ALPHA, MACH	706-729
Effect of SRBGAP on SRB Pressures	TLS101	CP VS. X/LREF	SRBGAP, PHI, ALPHA, MACH	730-759
Effect of Abort SRM on External Tank Pressures	TLS101 TLS102	CP VS. X/LREF	Conf., PHI, ALPHA, MACH	760-774
Effect of Abort SRM on SRB Pressures	TLS101 TLS102	CP VS. X/LREF	Conf., PHI, ALPHA, MACH	775-789
<u>Part B - Force Derivative Distributions</u>				
Normal Force Derivative Distributions for the External Tank	Varying	CNDXDA VS. X/LREF	MACH, ORBINC, Configuration	790-797

* Note: The radial distributions are plotted on side-by-side plot grids, two grids per page, corresponding to the two values of alpha or beta listed beside the symbol table at the bottom of each page. The first value listed applies to the left plot grid.

TABLE V. - Continued.

TITLE	CONFIGURATION	PLOT TYPE	CONDITIONS VARYING	PAGES
Side Force Derivative Distributions for the External Tank	TLS101	CYDXDB VS. X/LREF	MACH, ALPHA	798-799
Normal Force Derivative Distributions for the SRB	TLS1, TLS101	CNDXDA VS. X/LREF	MACH, ORBINC, Configuration	800-803
Side Force Derivative Distributions for the Left SRB	TLS101	CYDXDB VS. X/LREF	MACH, ALPHA	804-805
<u>Part C - Force Distributions</u>				
Normal Force Distributions for the External Tank	TL	DCN/DX VS. X/LREF	ALPHA, MACH	806-813
	TL01	DCN/DX VS. X/LREF	ALPHA, MACH	814-821
	TLS1	DCN/DX VS. X/LREF	ALPHA	822-823
	TLS101	DCN/DX VS. X/LREF	ALPHA, MACH, ORBINC	824-837
	TLS101	DCN/DX VS. X/LREF	BETA, MACH, ALPHA	838-840
Side Force Distributions for the External Tank	TLS101	DCY/DX VS. X/LREF	BETA, MACH, ALPHA	841-843
Normal Force Distributions for the SRB	TLS1	DCN/DX VS. X/LREF	ALPHA	844-845
	TLS101	DCN/DX VS. X/LREF	ALPHA, MACH, ORBINC	846-859

TABLE V. - Continued.

TITLE	CONFIGURATION	PLOT TYPE	CONDITIONS VARYING	PAGES
Normal Force Distributions for the SRB	TLS101	DCN/DX VS. X/LREF	BETA, MACH, ALPHA	860-865
Side Force Distributions for the Left SRB	TLS1	DCY/DX VS. X/LREF	ALPHA	866-867
	TLS101	DCY/DX VS. X/LREF	ALPHA, MACH, ORBINC	868-881
	TLS101	DCY/DX VS. X/LREF	BETA, MACH, ALPHA	882-887
<u>Part D - Component Total Force Coefficients</u>				
Effect of Configuration Build-up and ORBINC on External Tank Force Coefficients	Varying	A	Configuration, ORBINC, MACH	888-899
Force Coefficients for the External Tank in the Launch Configuration	TLS101	A	MACH	900-902
	TLS101	B	MACH, ALPHA	903-906
Effect of Configuration Build-up and ORBINC on SRB Force Coefficients	TLS1 TLS101	A	Configuration, ORBINC, MACH	907-912
Force Coefficients for the SRB in the Launch Configuration	TLS101	A	MACH	913-915

TABLE V. - Concluded.

TITLE	CONFIGURATION	PLOT TYPE	CONDITIONS VARYING	PAGES
Force Coefficients for the SRB in the Launch Configuration	TLS101	B	MACH, ALPHA	916-919
Force Coefficients for the Tank Alone and the Tank + SRB's	T1 TLS1	A	Configuration	920-922

PLOTTED FORCE COEFFICIENTS SCHEDULE:

- (A) CN, CAF, CLM vs. ALPHA
- (B) CY, CYN vs. BETA

NOTES:

1. POSITIVE DIRECTIONS OF FORCE COEFFICIENTS, MOMENT COEFFICIENTS, AND ANGLES ARE INDICATED BY ARROWS.
2. FOR CLARITY, ORIGINS OF WIND AND STABILITY AXES HAVE BEEN DISPLACED FROM THE CENTER OF GRAVITY.

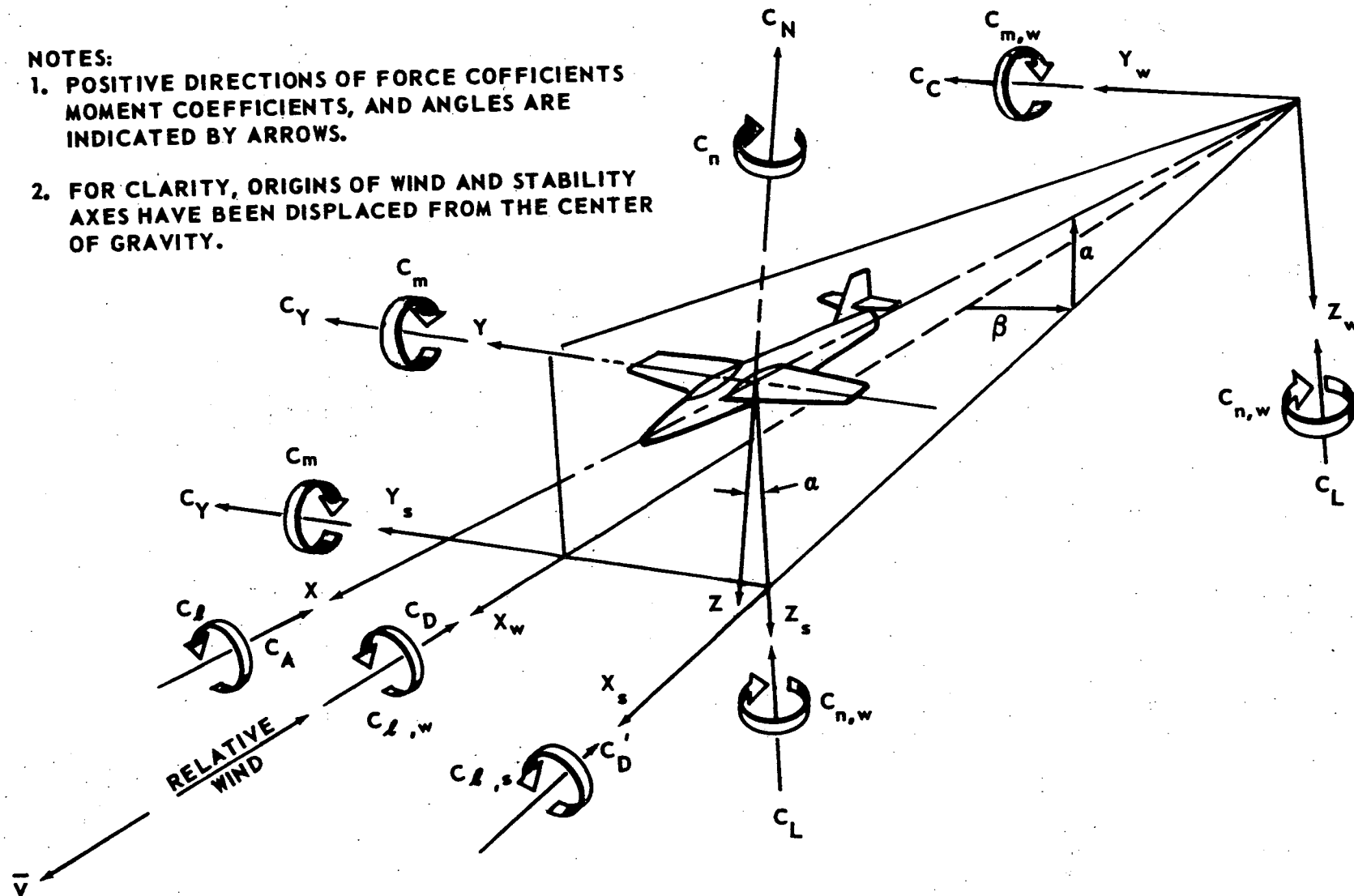


Figure 1. - Axis systems.

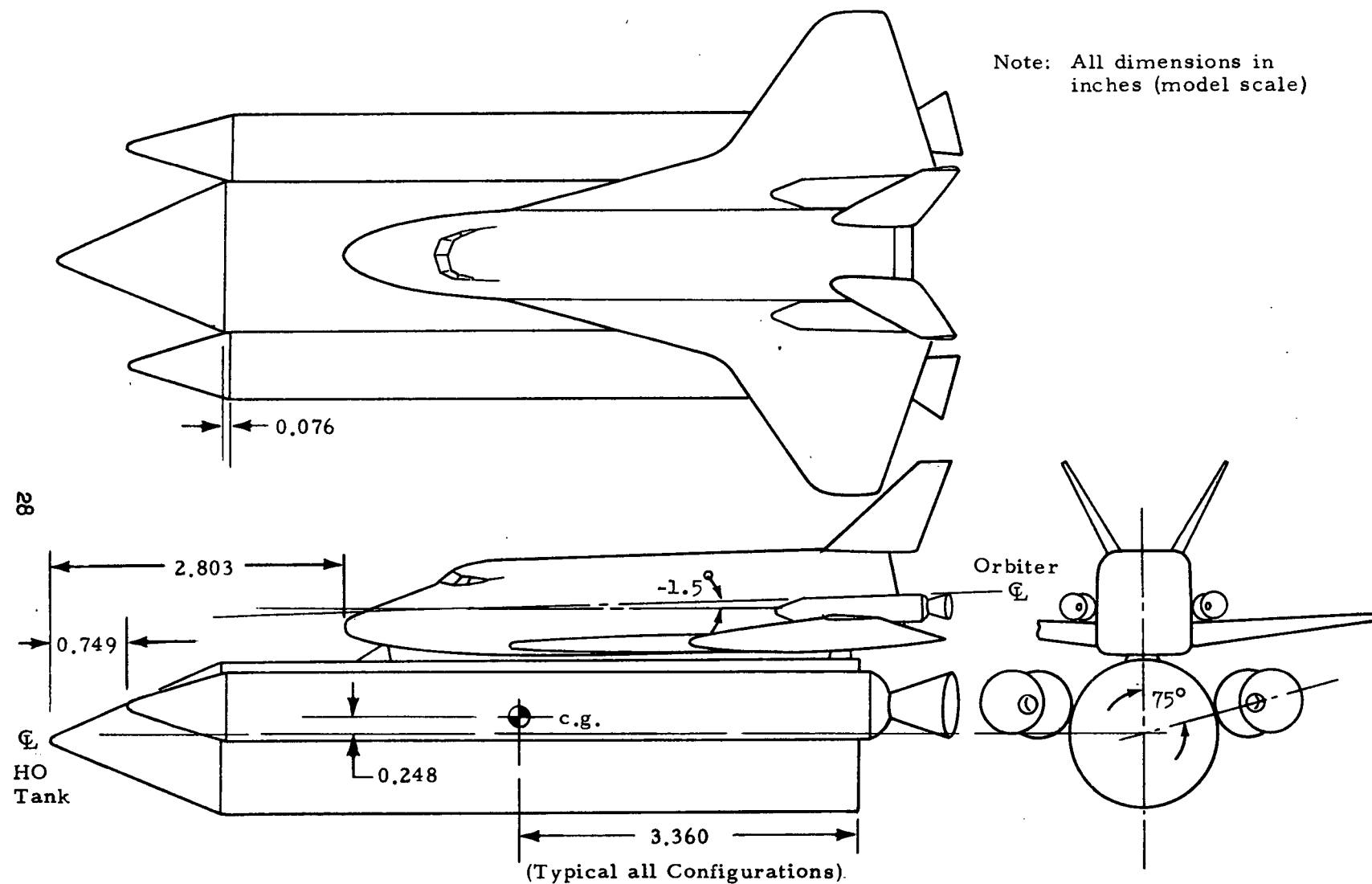


Fig. 2 - Baseline Launch Vehicle

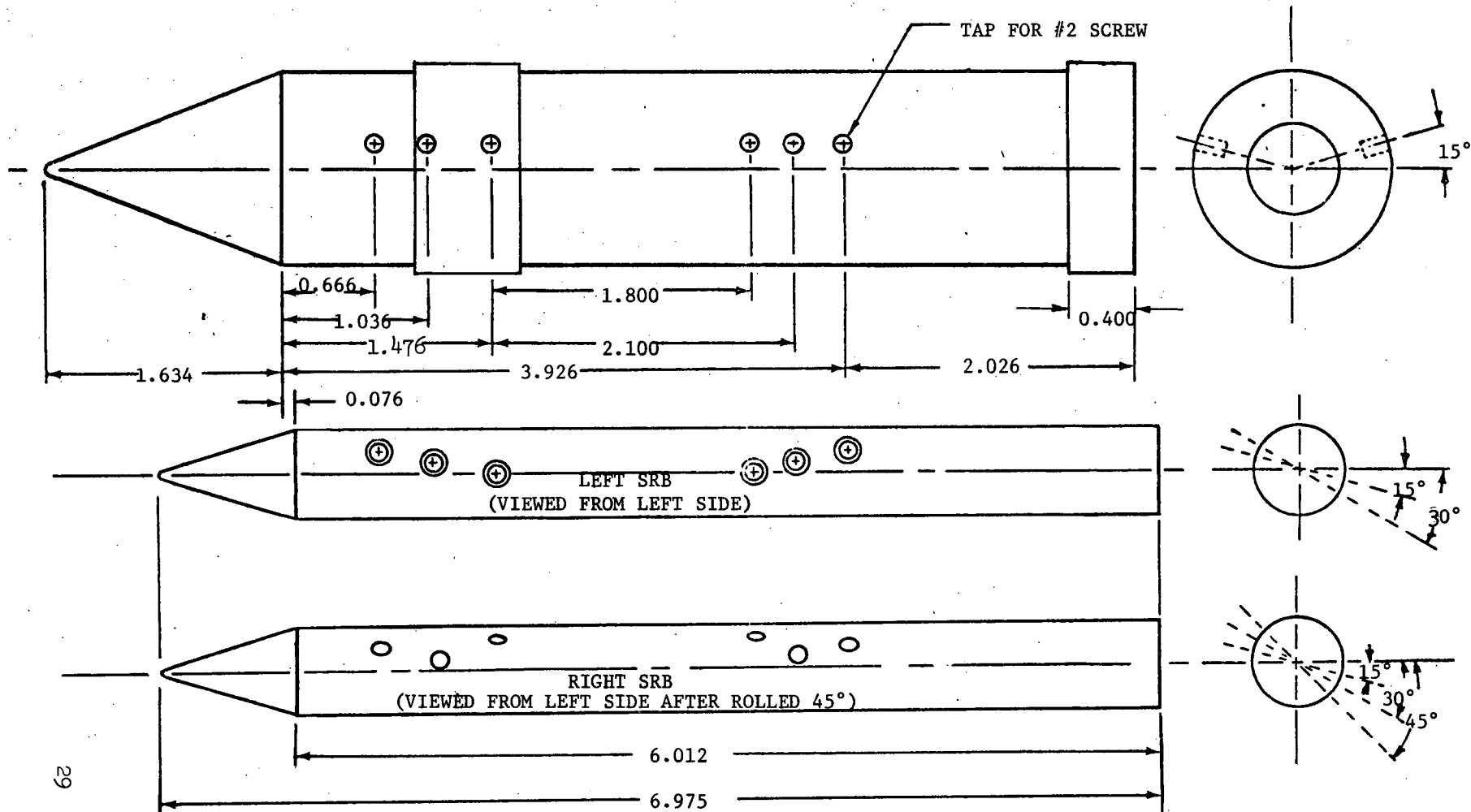


FIGURE 3. BOLT PATTERN FOR ATTACHING THE SRB's TO THE EXTERNAL TANK

NOTE:
All dimensions in inches
(model scale).

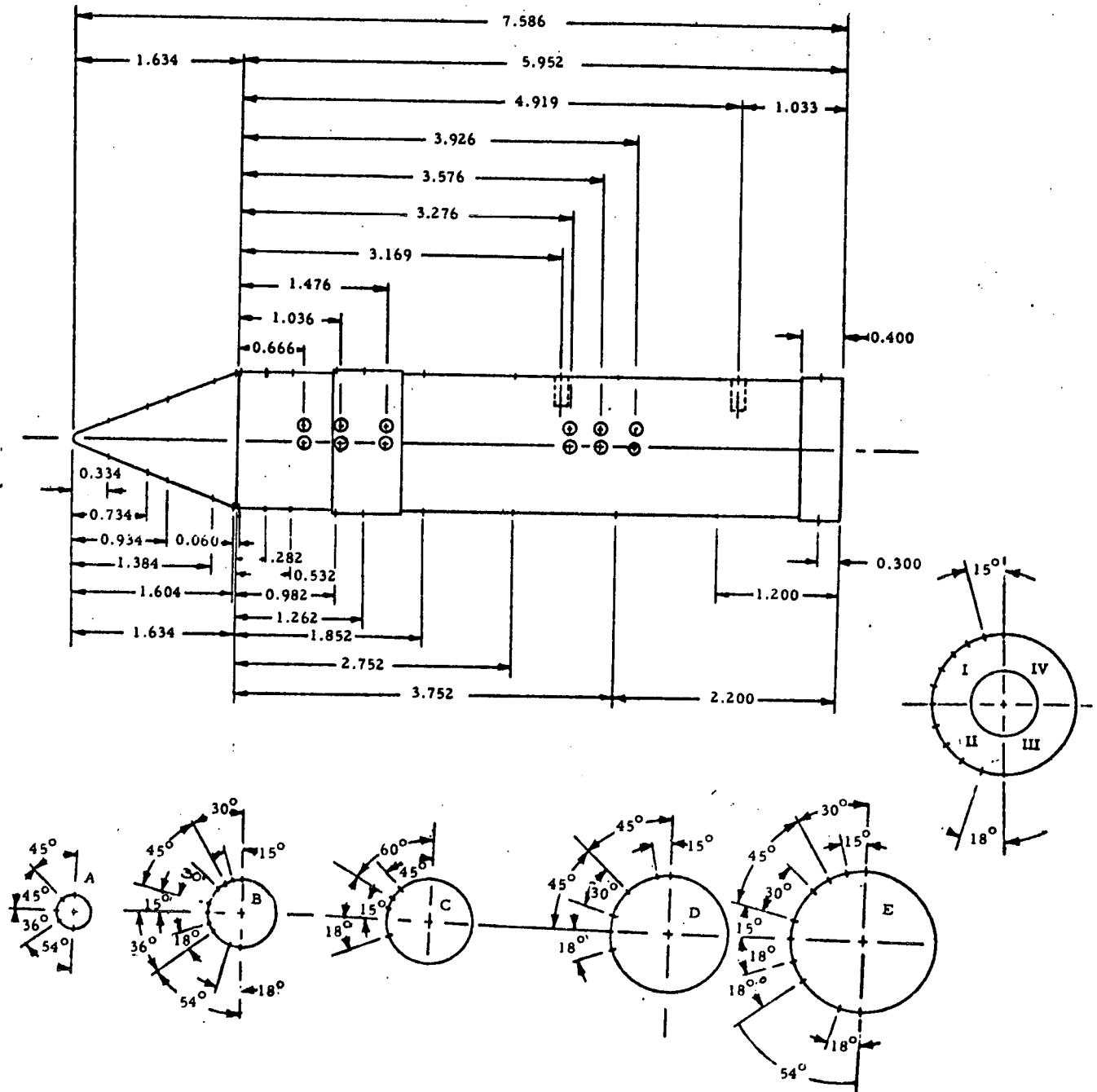


Fig. 4 - HO Tank Pressure Orifice Location

SYM	ORIFICE LOCATION
	TIP OR BOTTOM
•	FRONT
◆	BACK
◀	FRONT & BACK

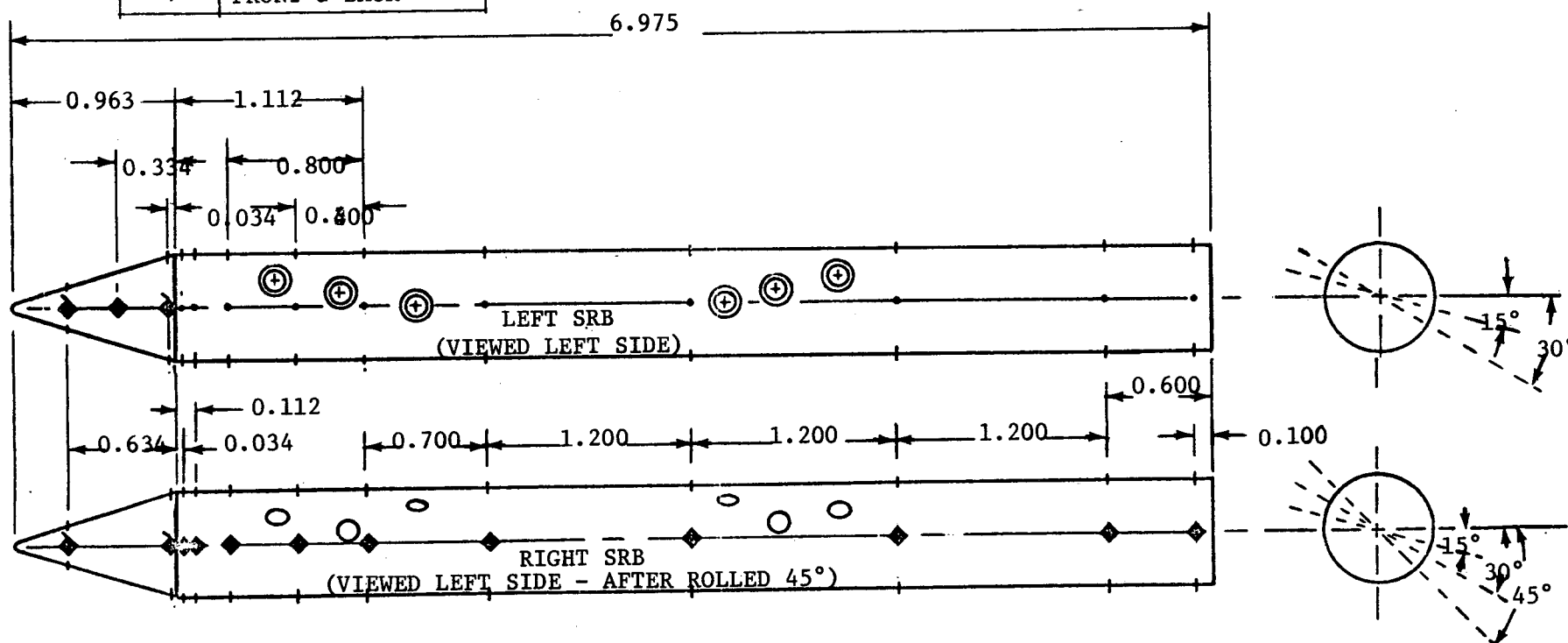
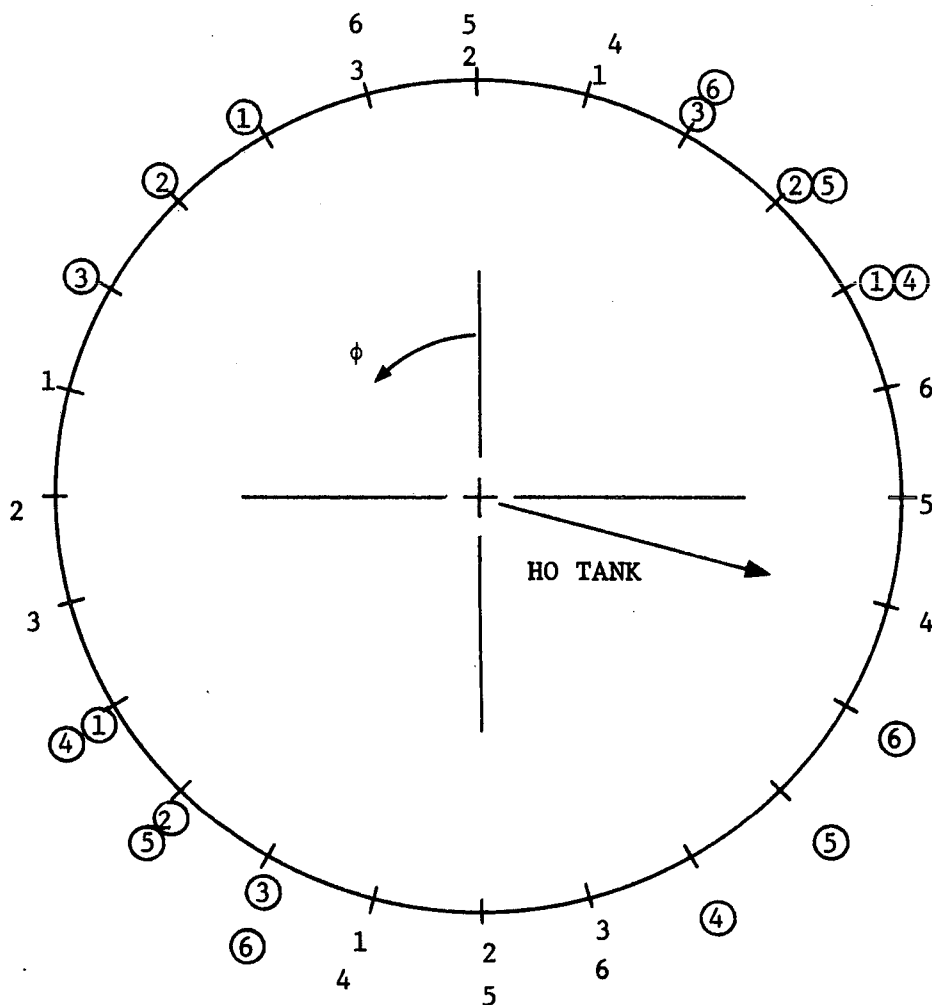


FIGURE 5. ORIFICE LOCATIONS ON SRB's



AFT VIEW (REFERENCED TO LEFT SRB)

- 1 = SRB POSITION I (LEFT SRB)
- 2 = SRB POSITION II
- 3 = SRB POSITION III
- 4 = SRB POSITION I + 180
- 5 = SRB POSITION II + 180
- 6 = SRB POSITION III + 180

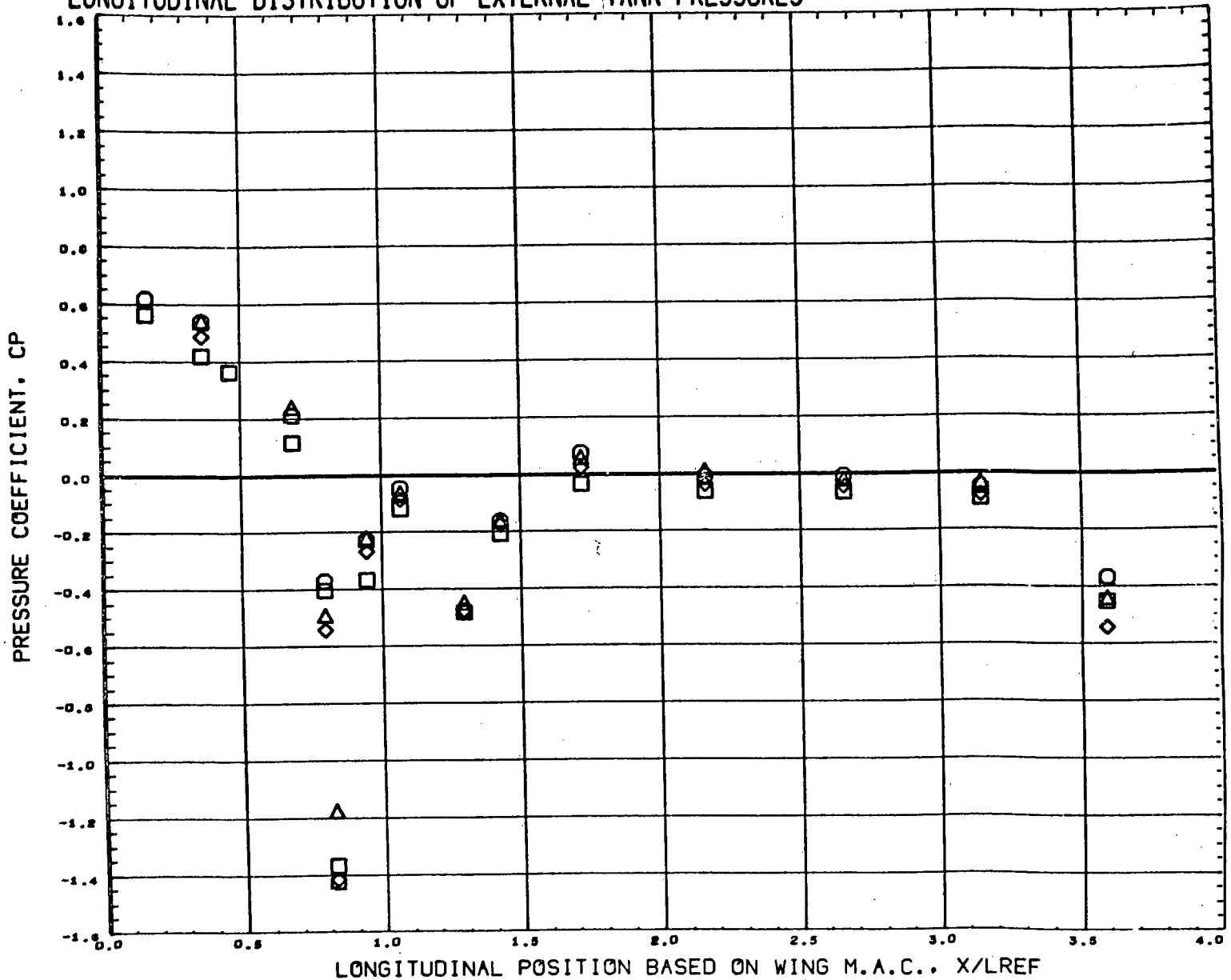
NOTE: CIRCLED NUMBER, (3), REPRESENTS ORIFICE
LOCATED ON RIGHT SRB REFERRED TO THE LEFT SRB

FIGURE 6. COMPOSITE OF RADIAL LOCATIONS OF ORIFICES ON SRB FOR
VARIOUS BOLT PATTERNS

DATA FIGURES

Tabulations of the plotted data and corresponding source data are available from SADSAC Operations.

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



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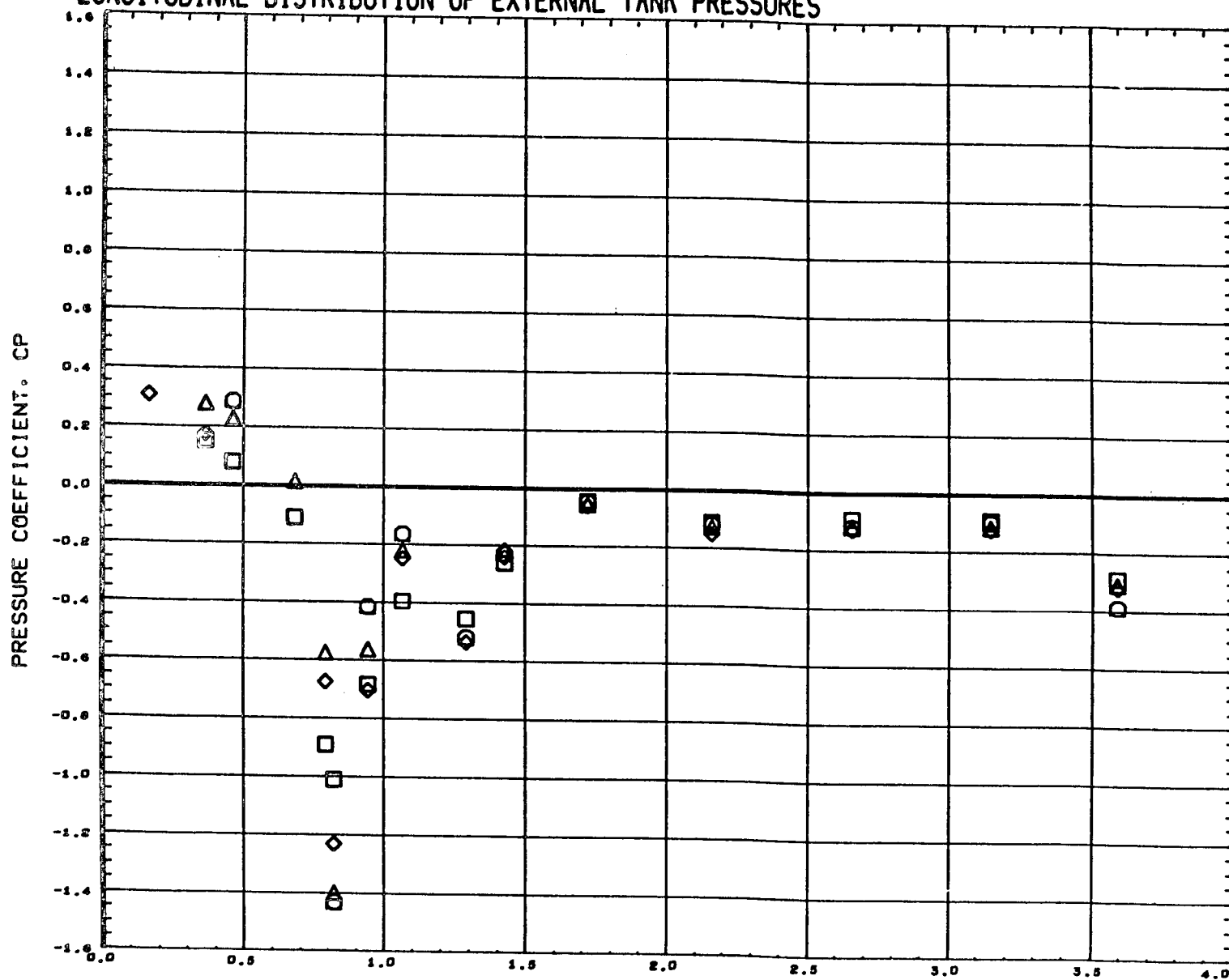
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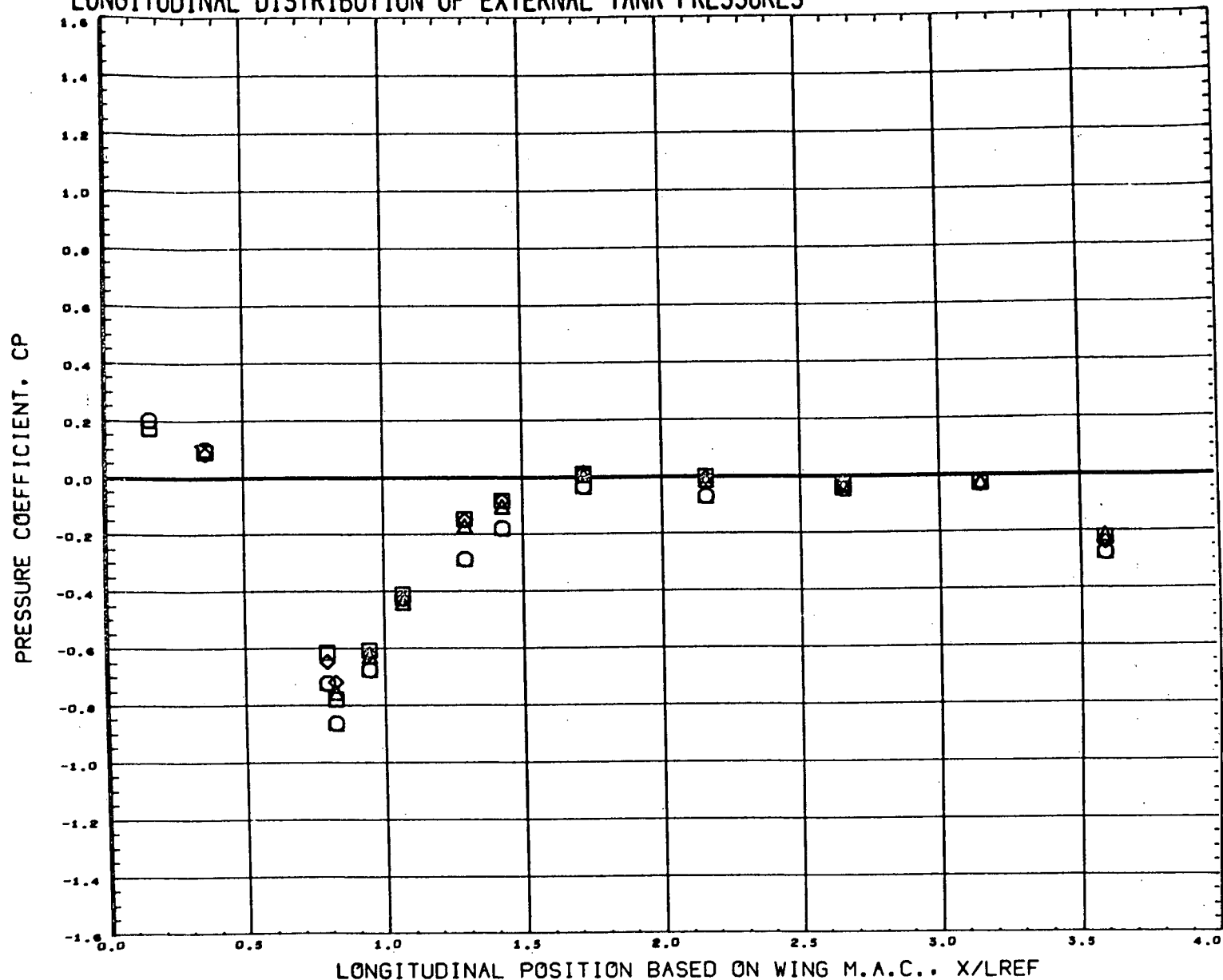
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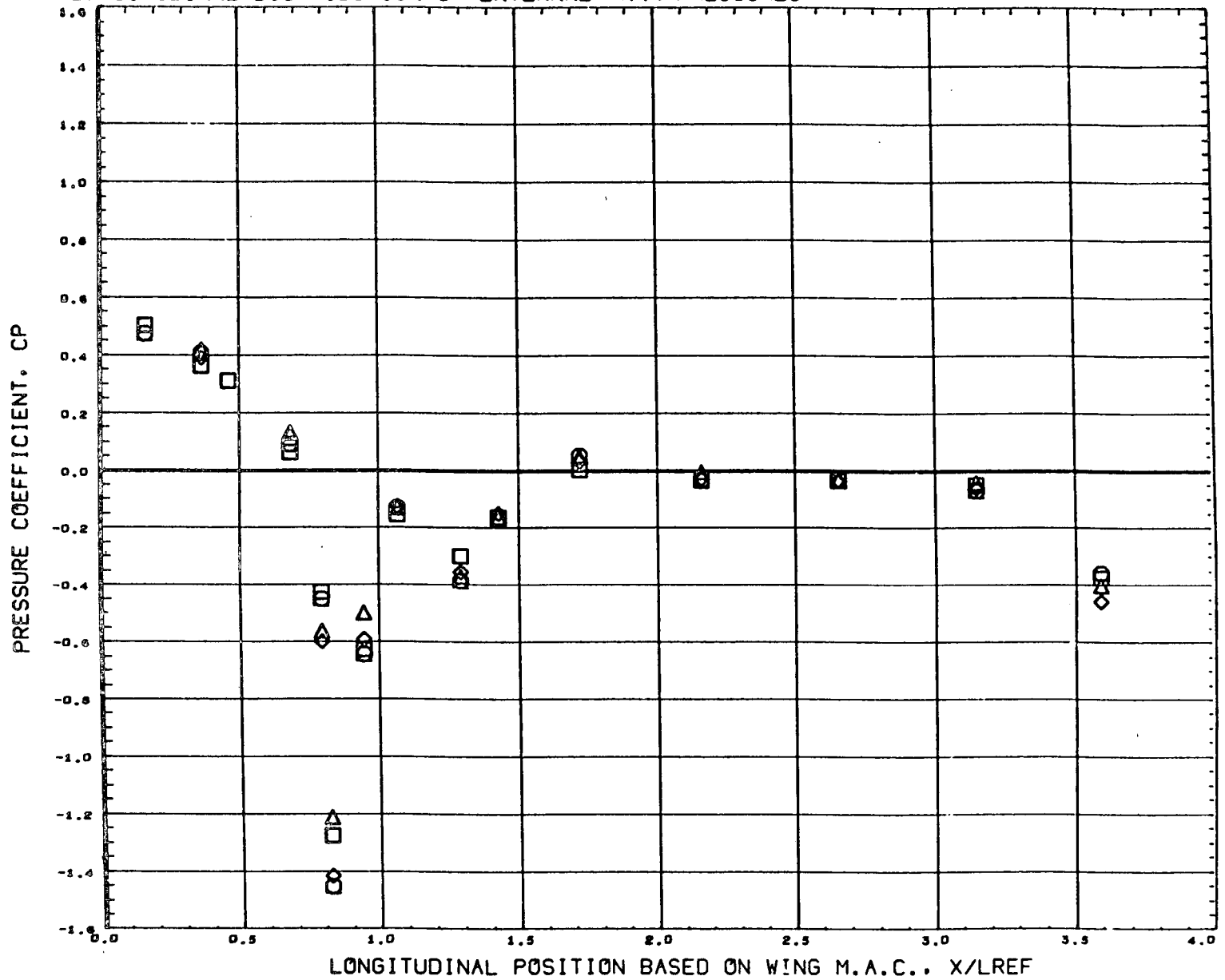
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PAGE 3

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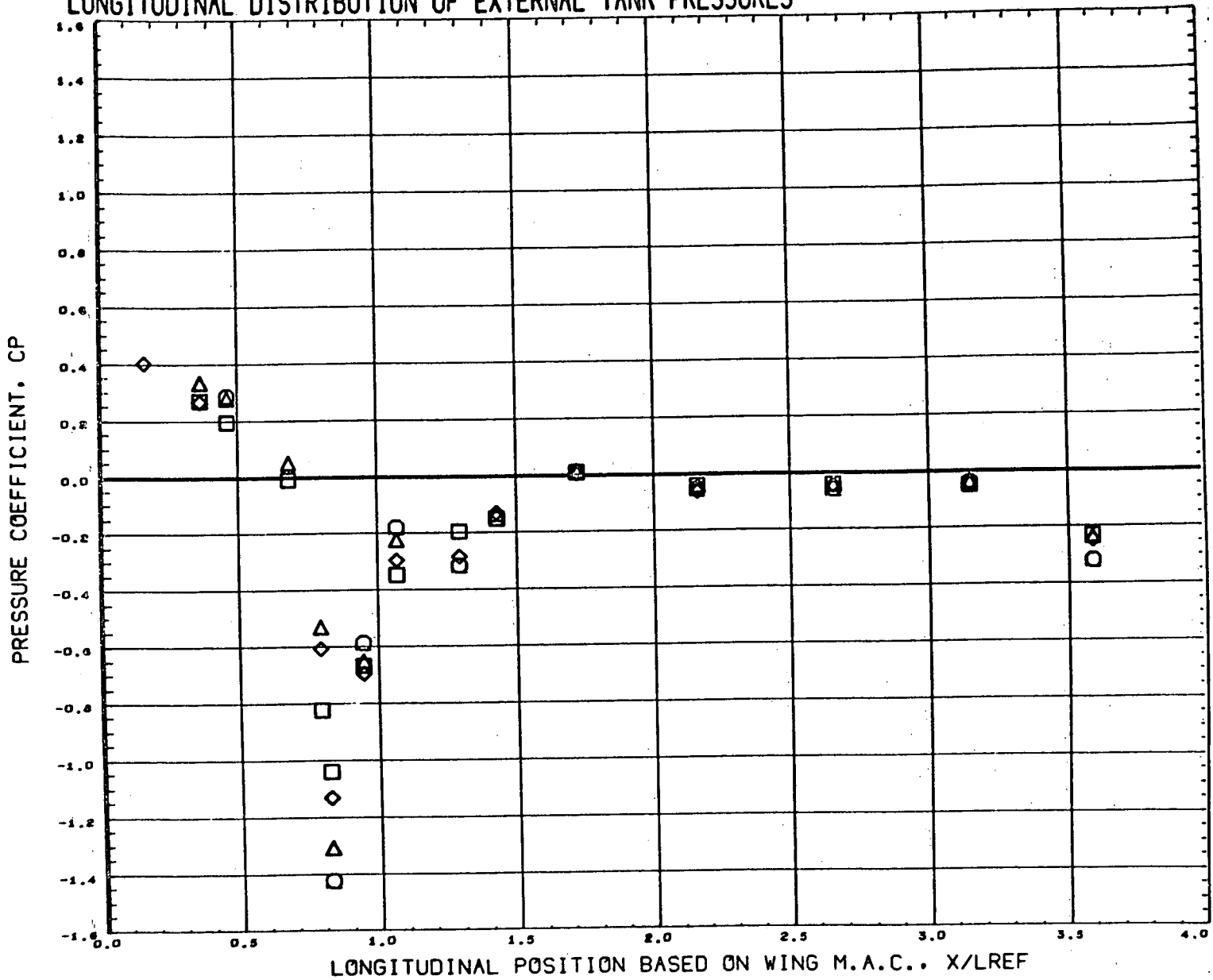
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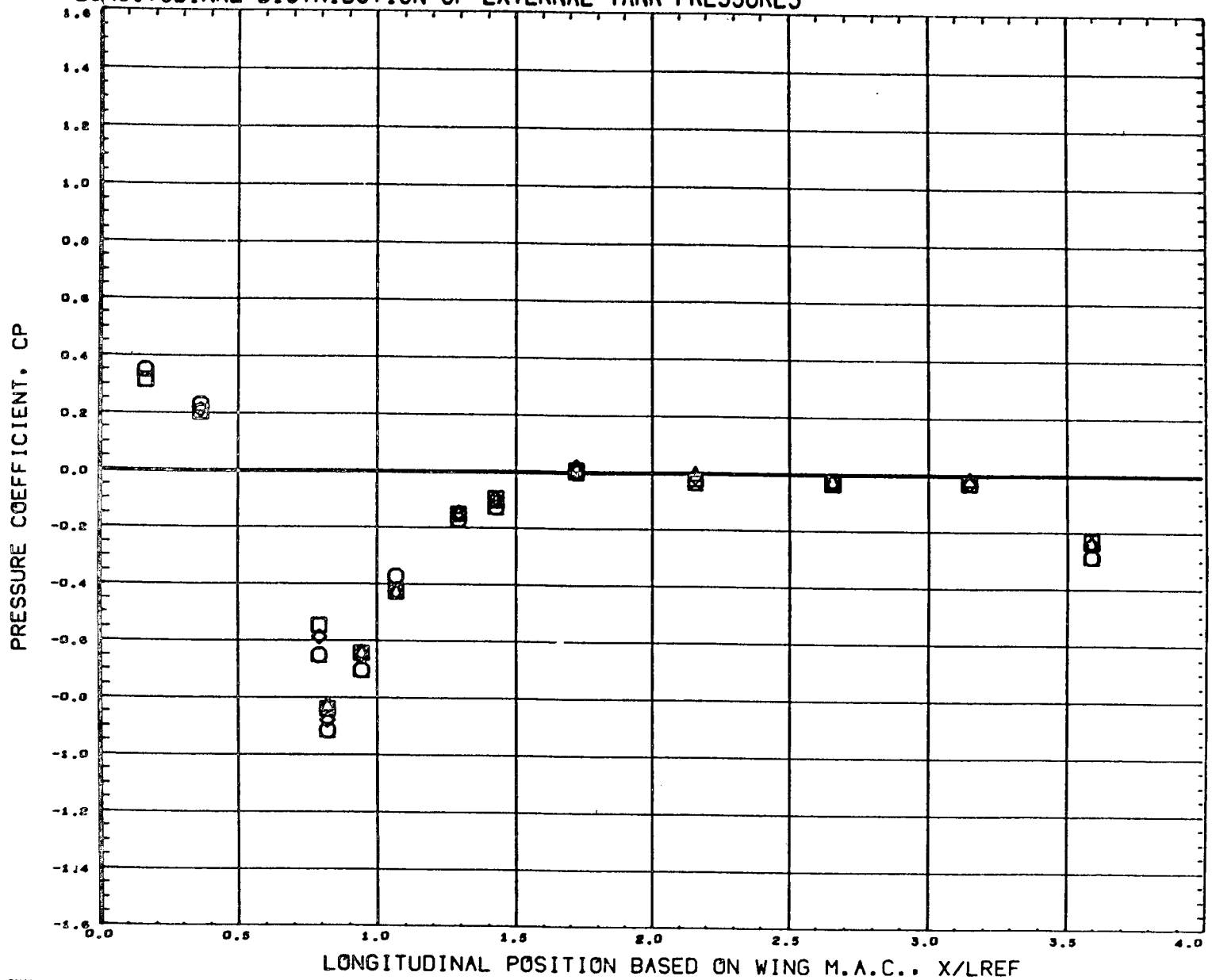
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PAGE 5

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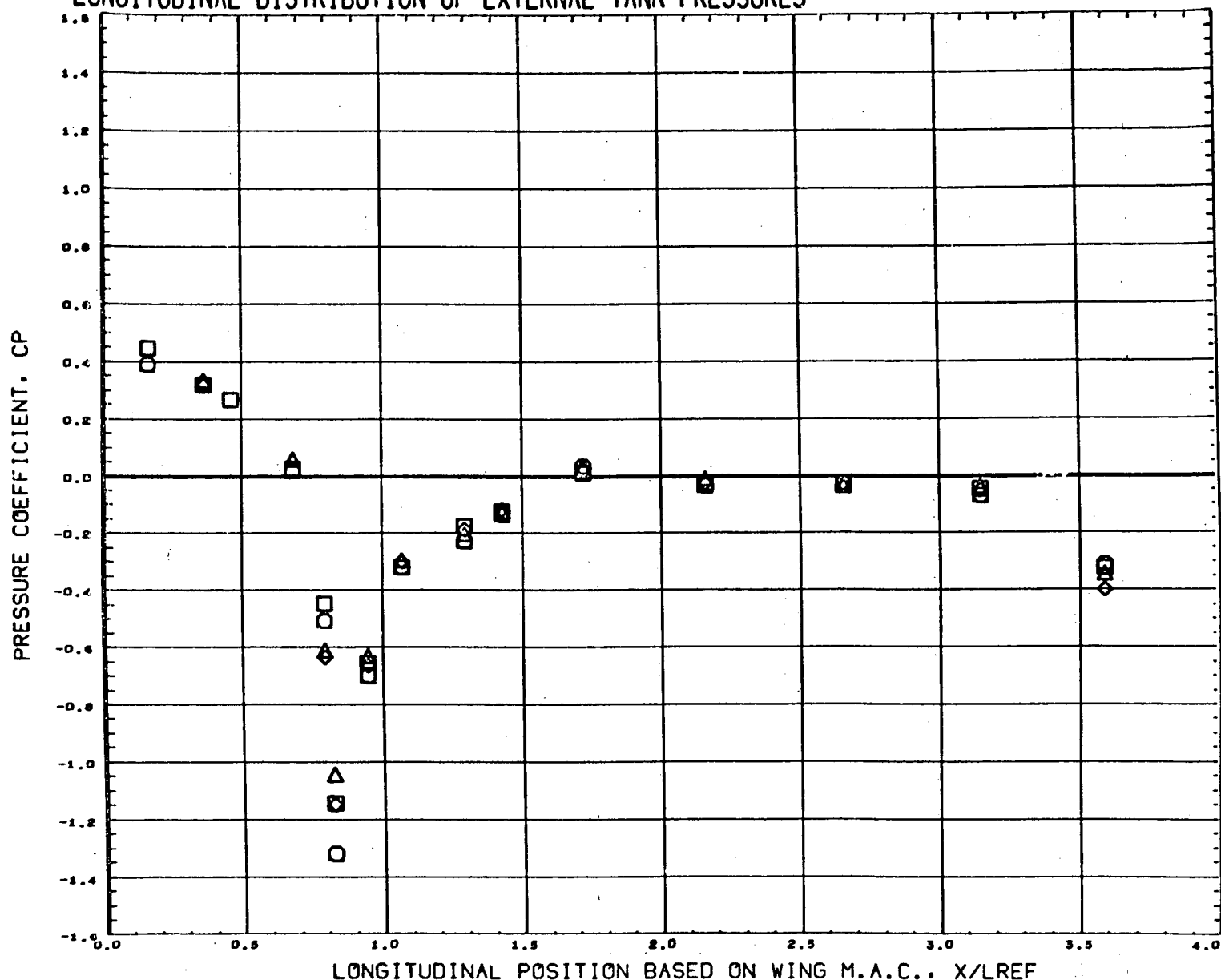
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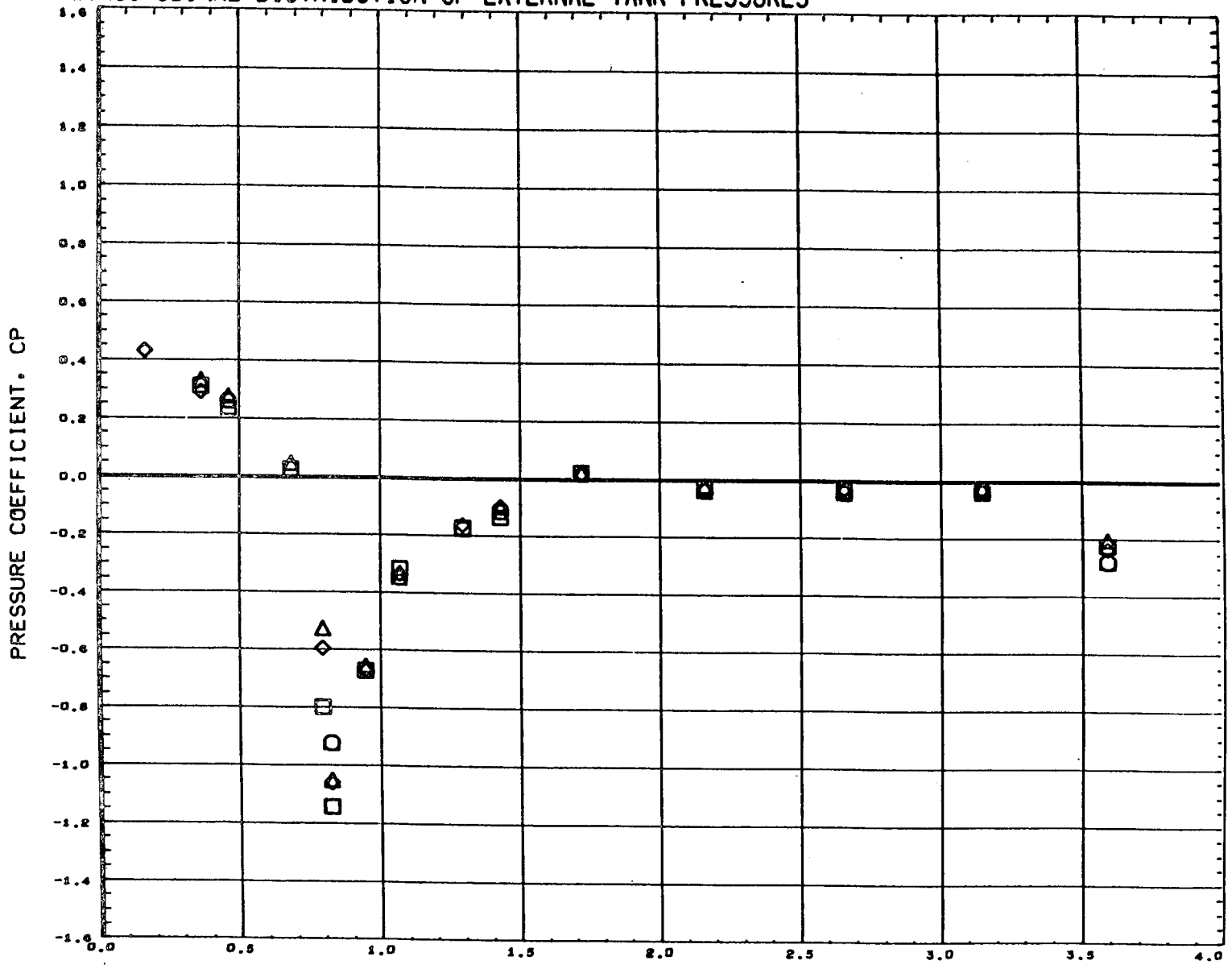
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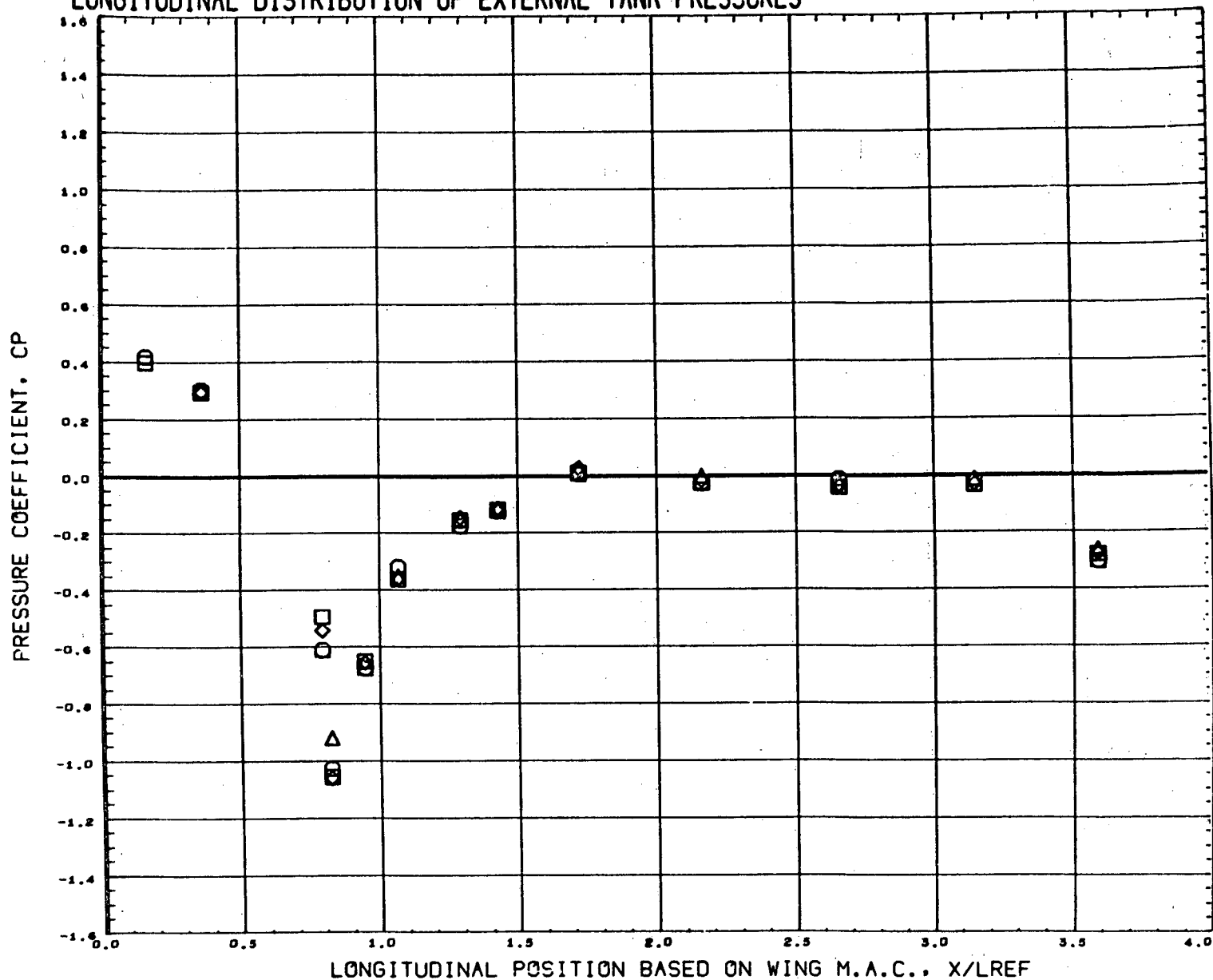
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PAGE 8

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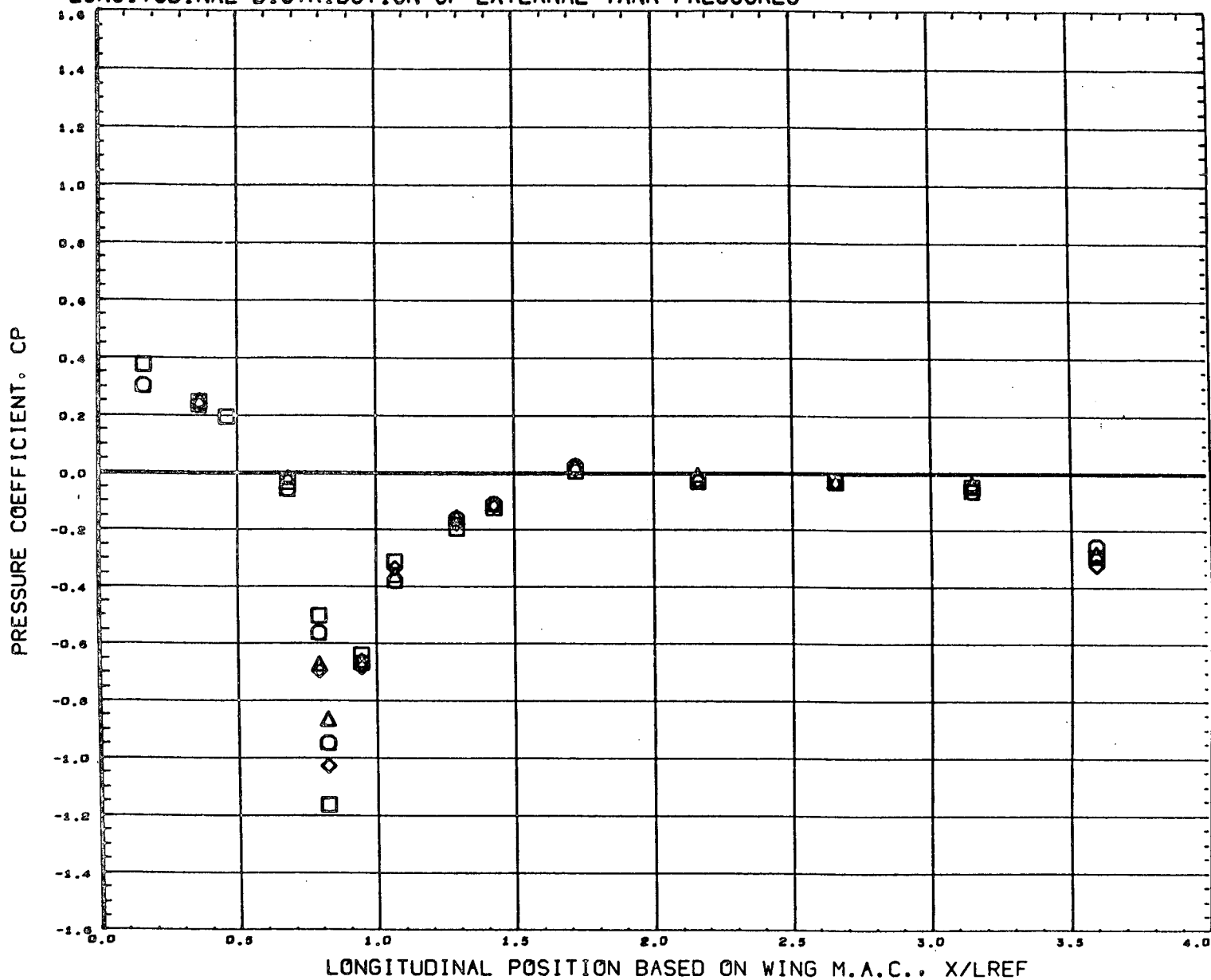
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PAGE 9

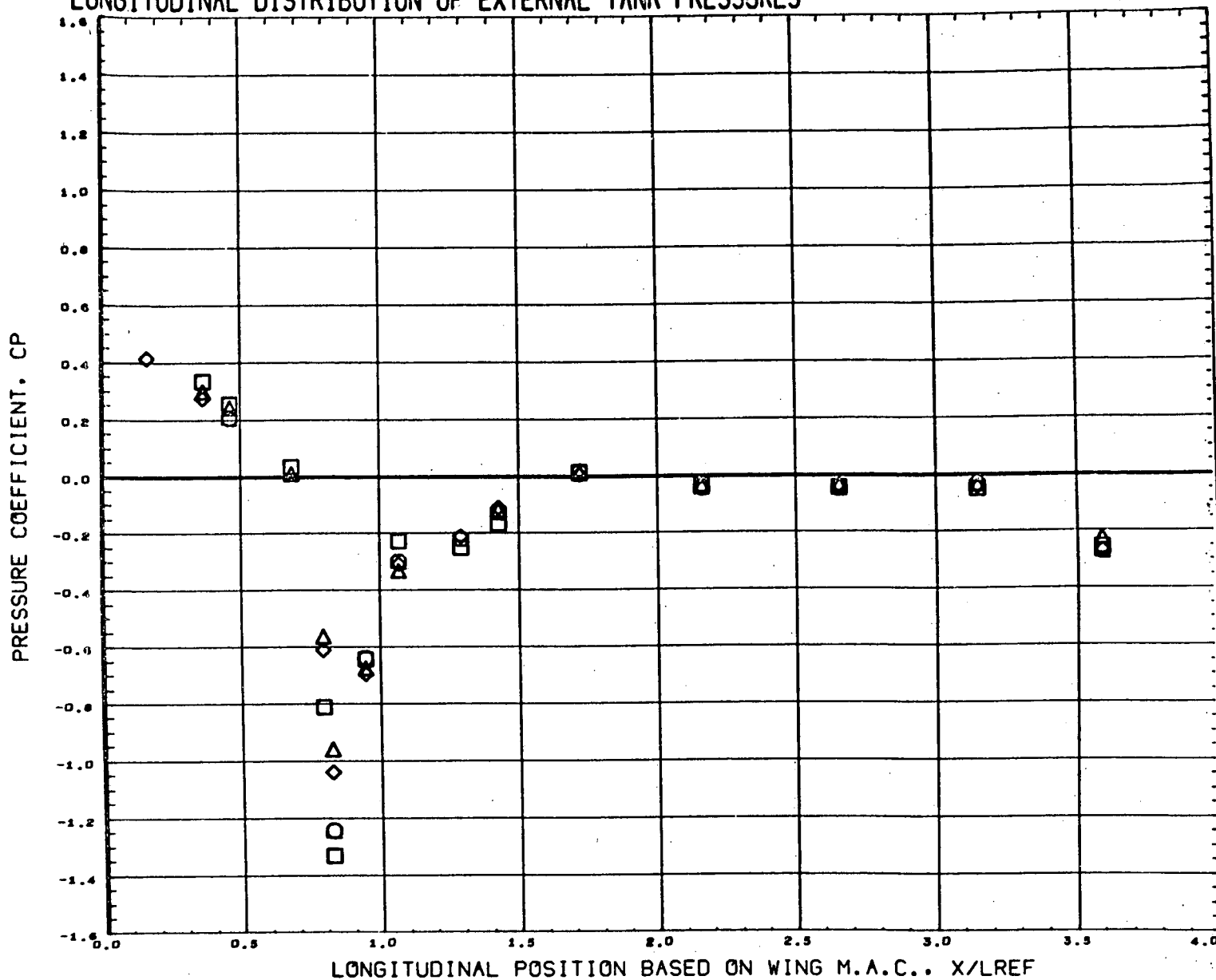
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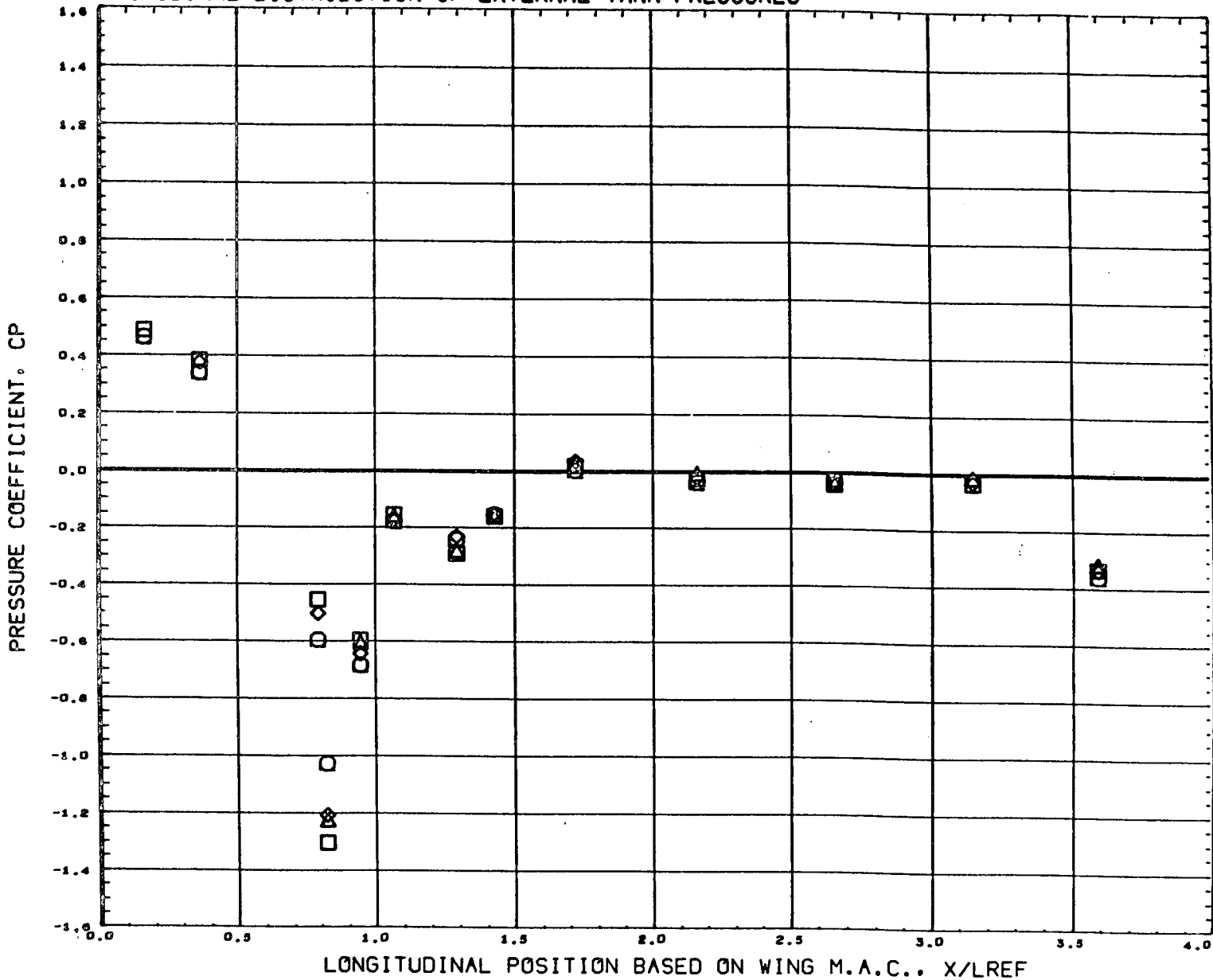
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PAGE 11

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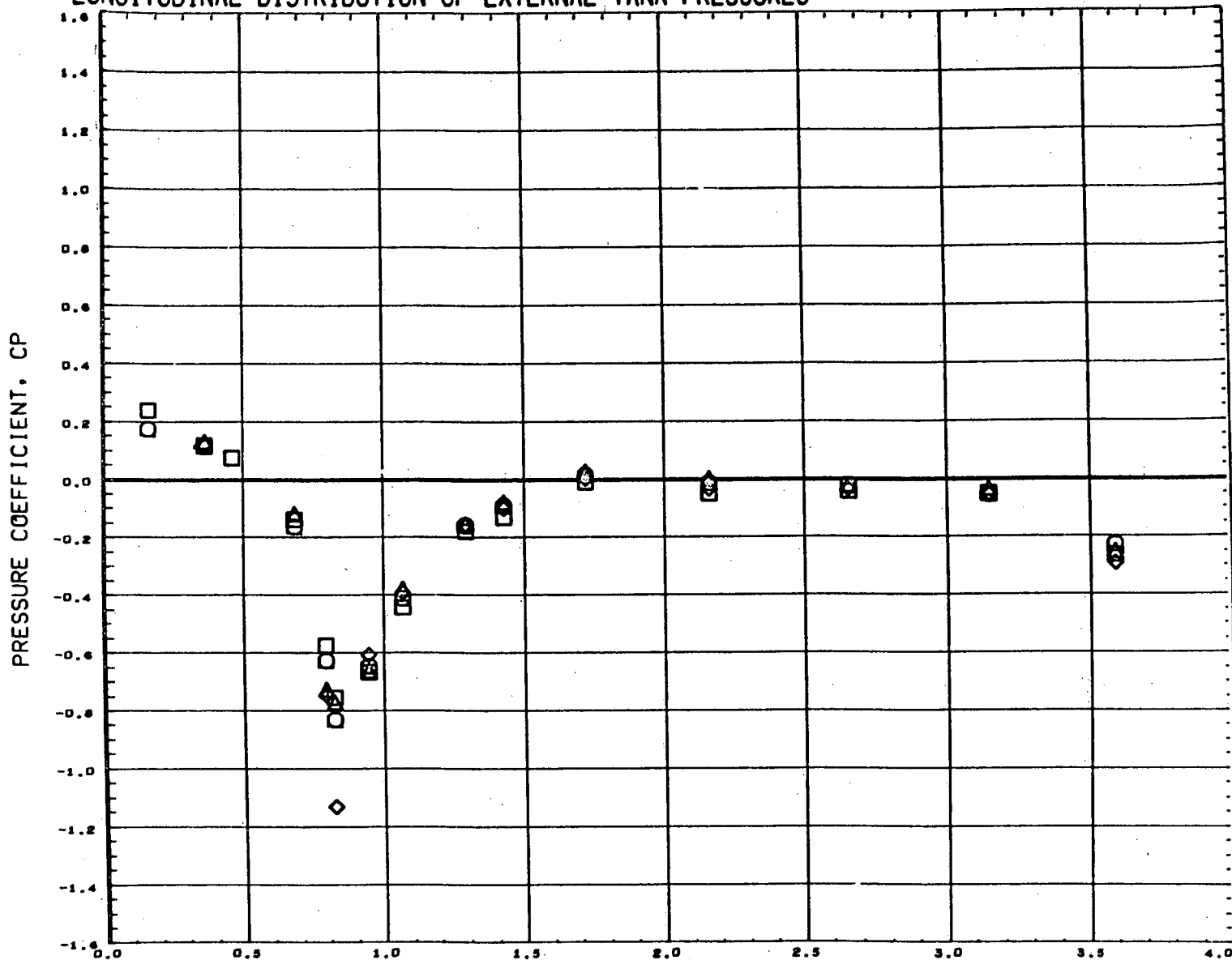
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PAGE 12

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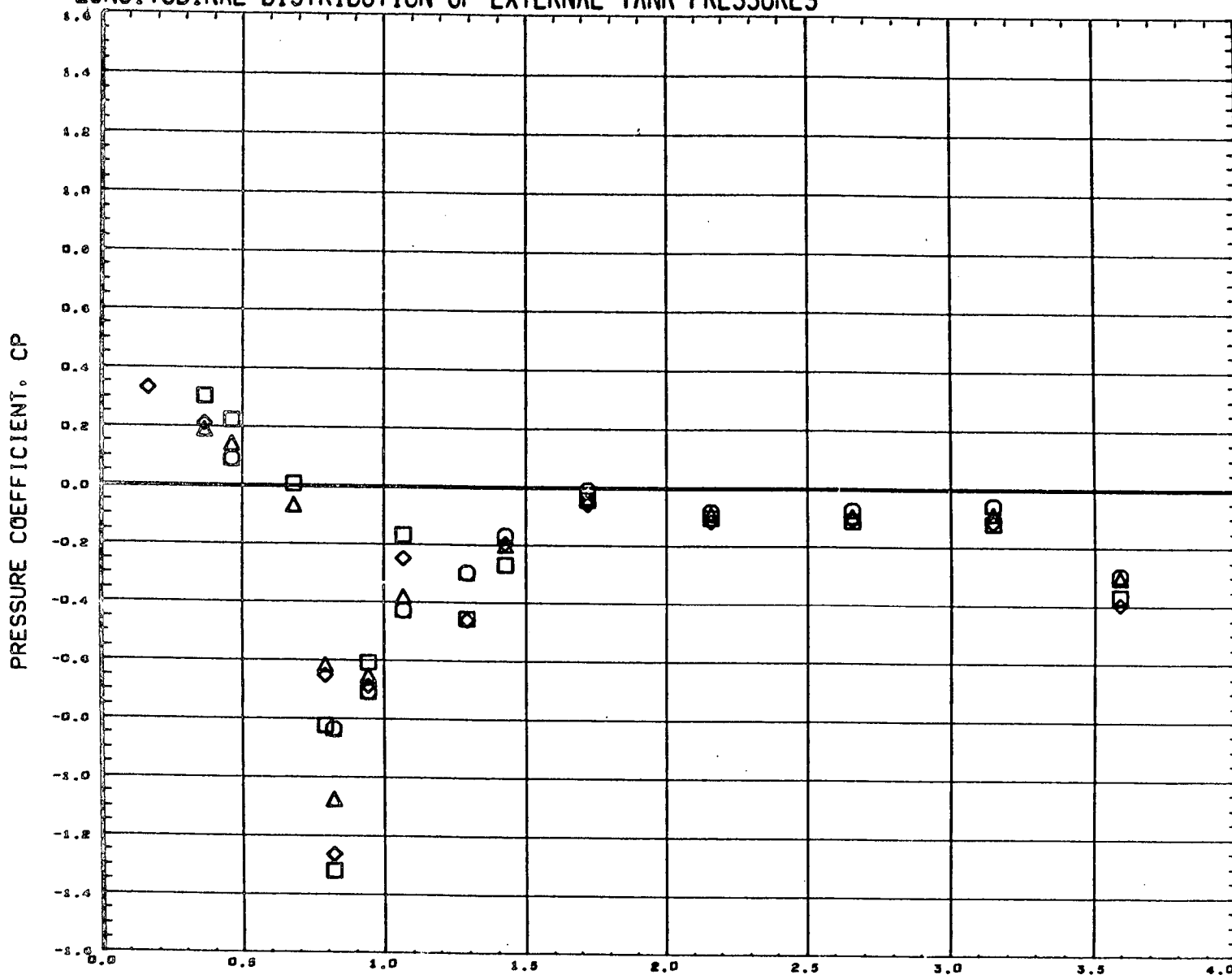


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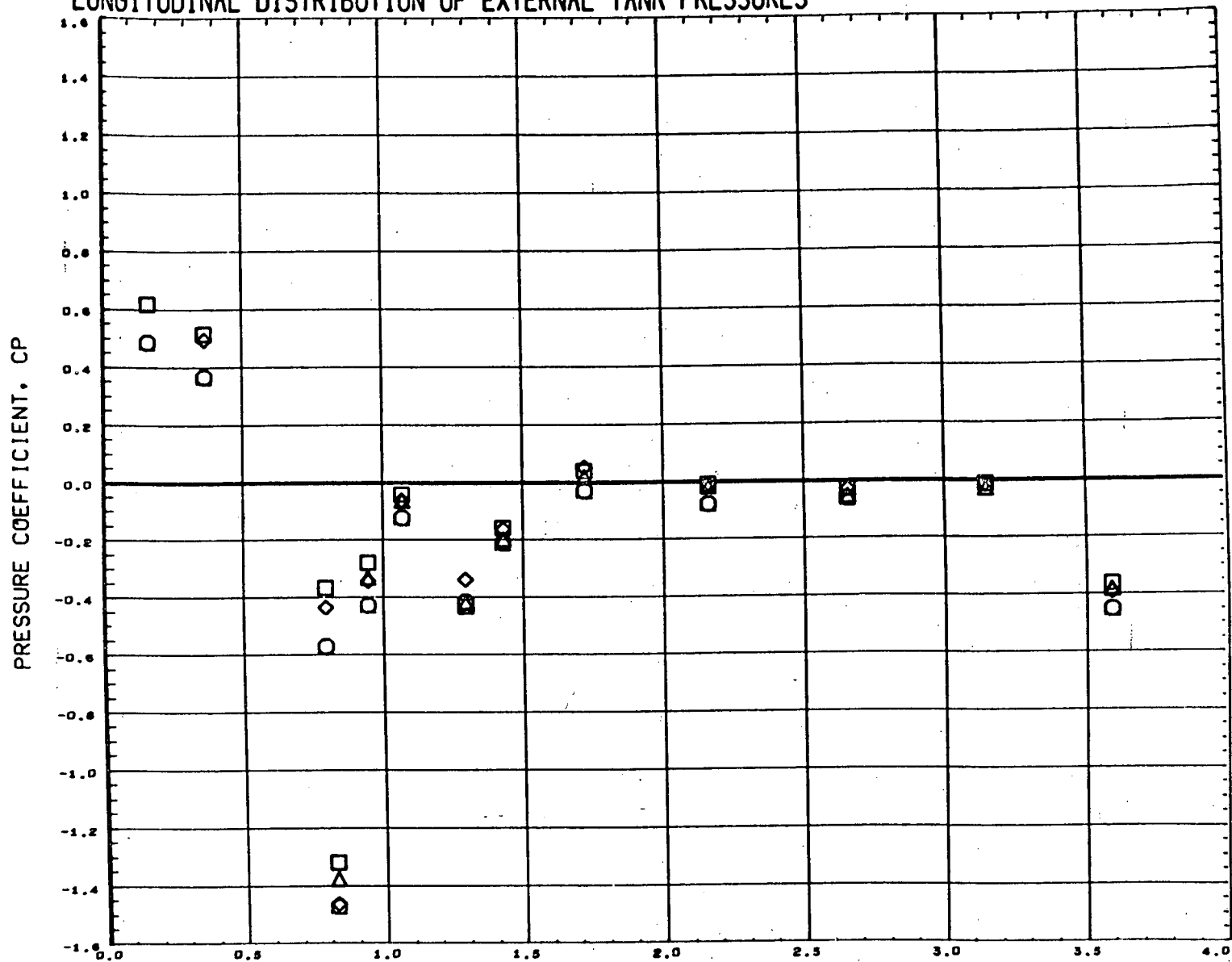
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PAGE 14

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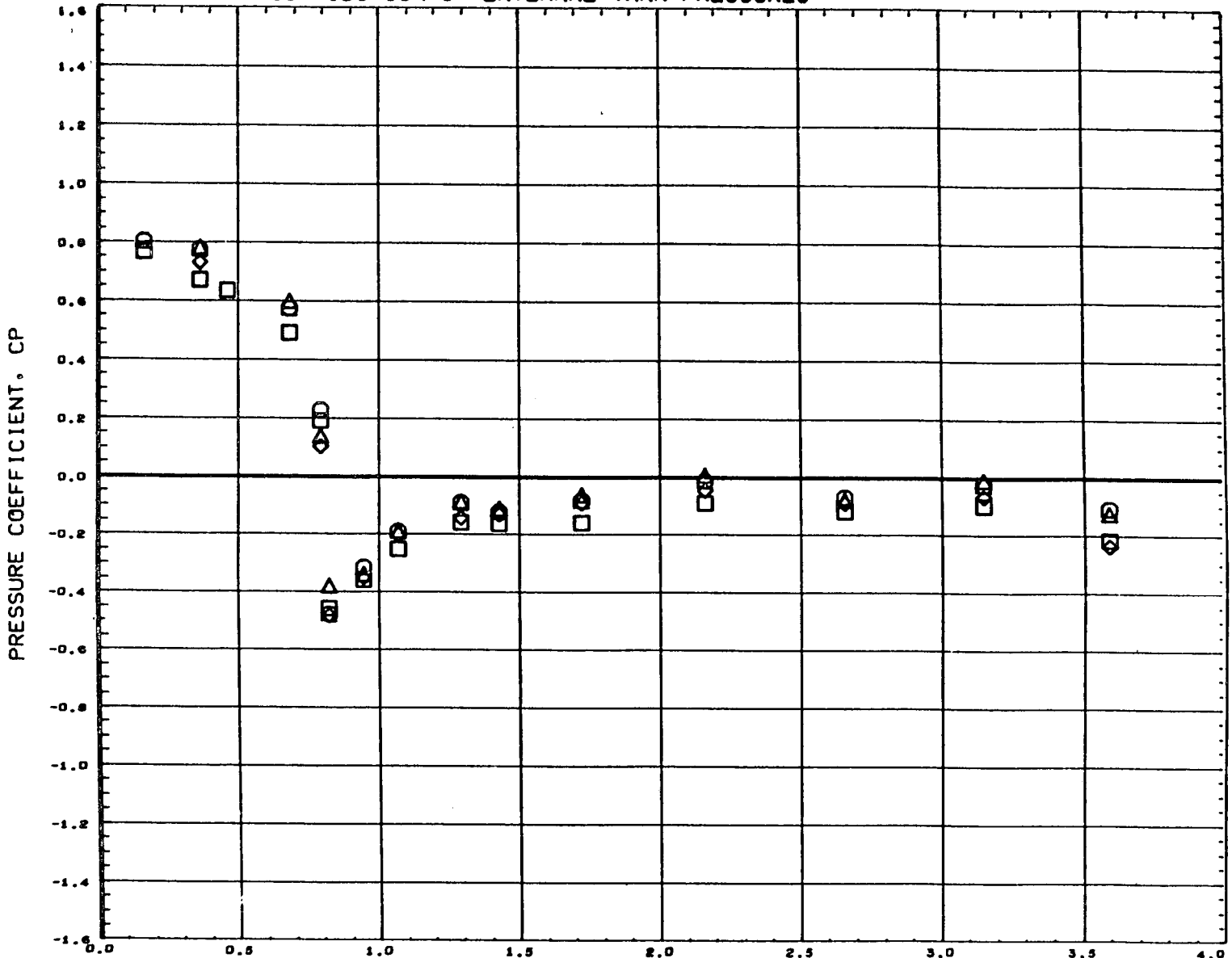
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PAGE 15

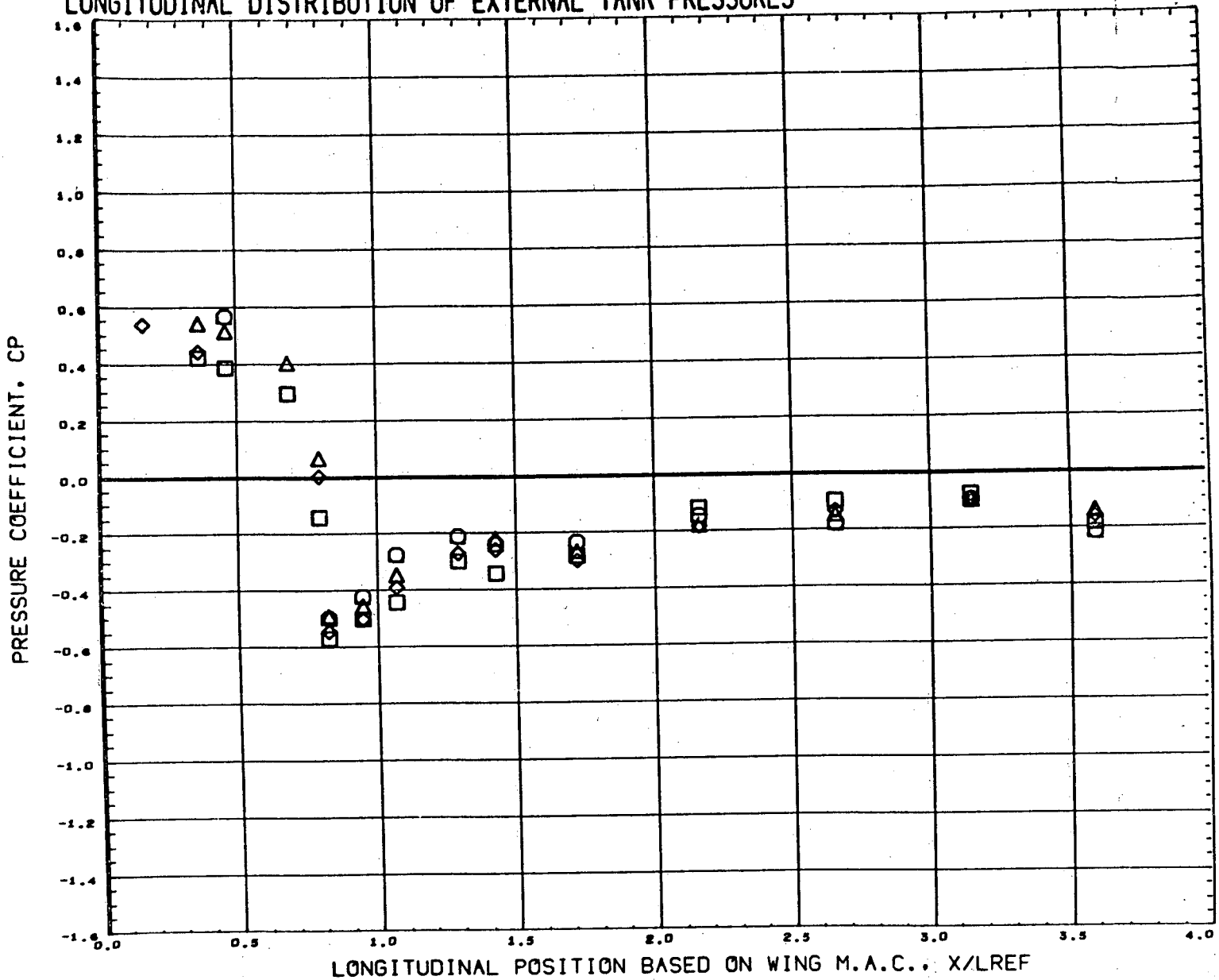
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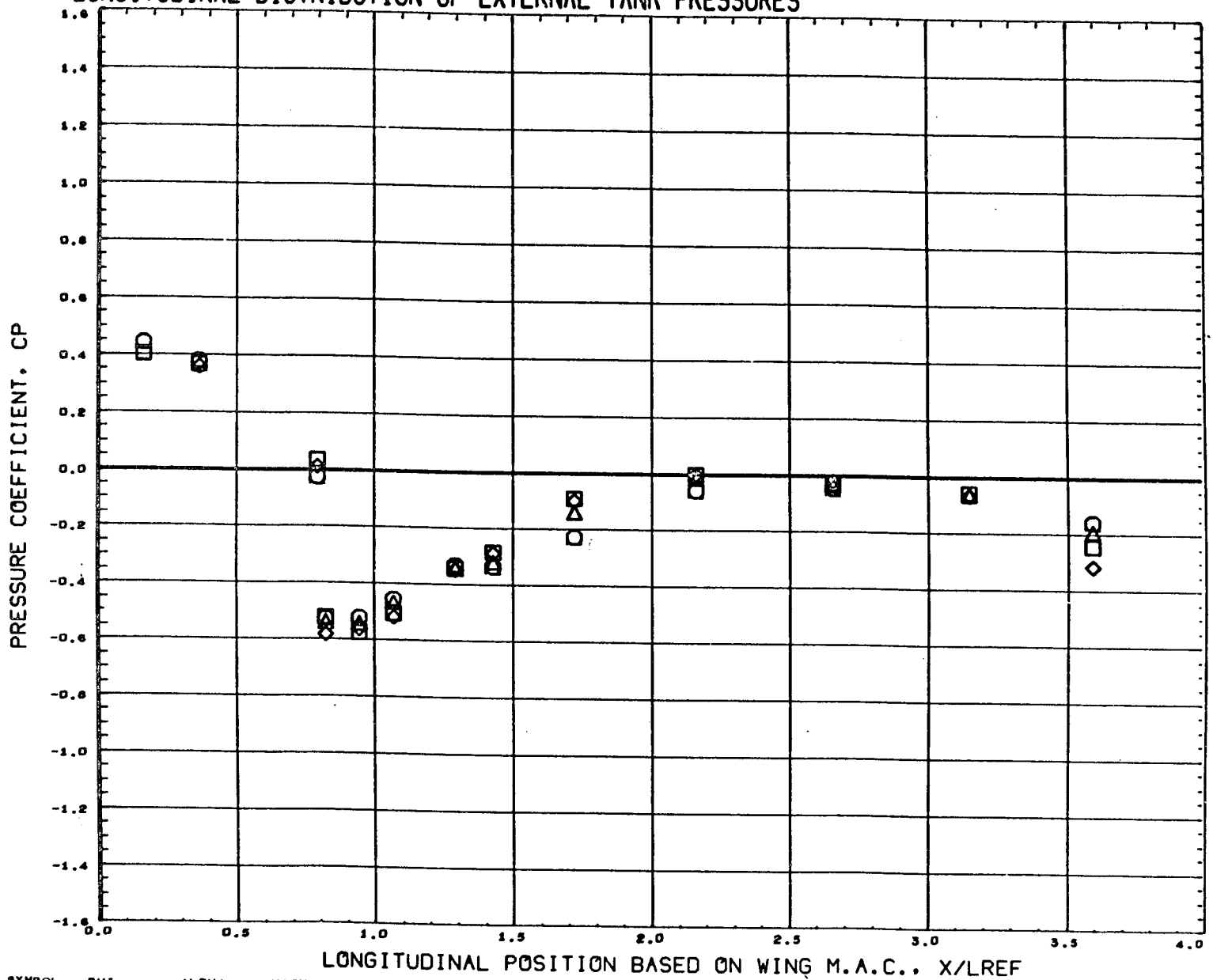
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PAGE 17

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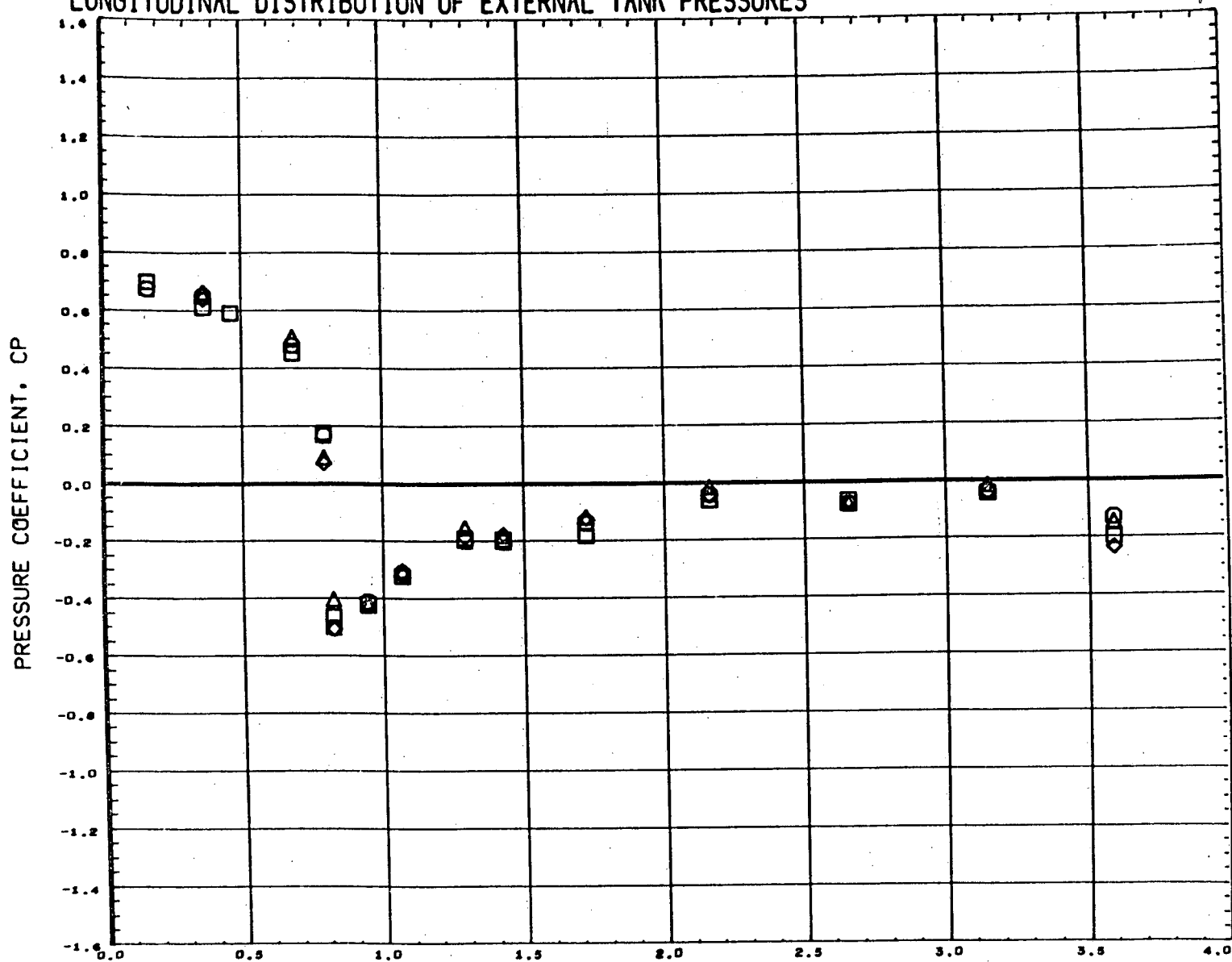
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PAGE 18

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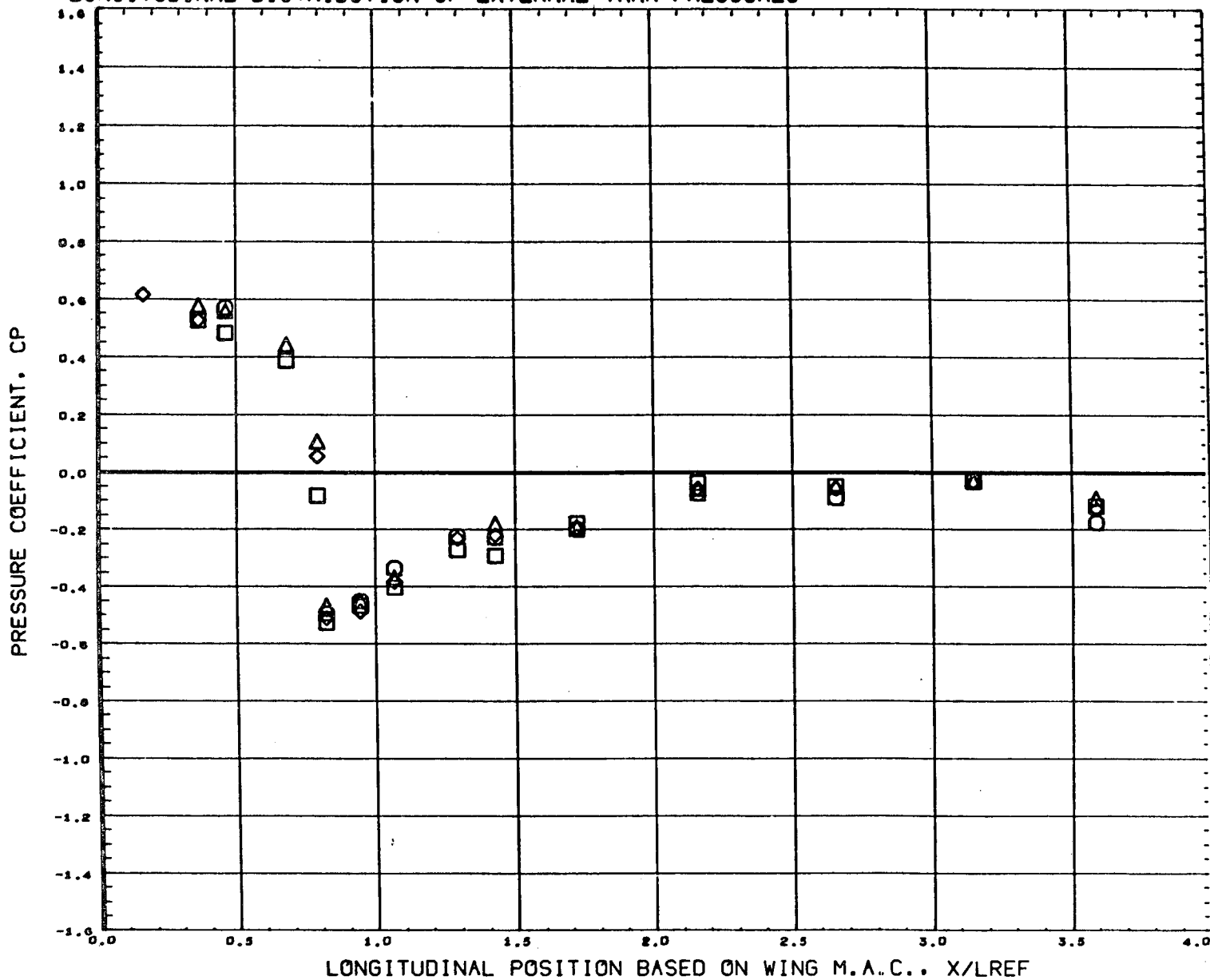
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PAGE 19

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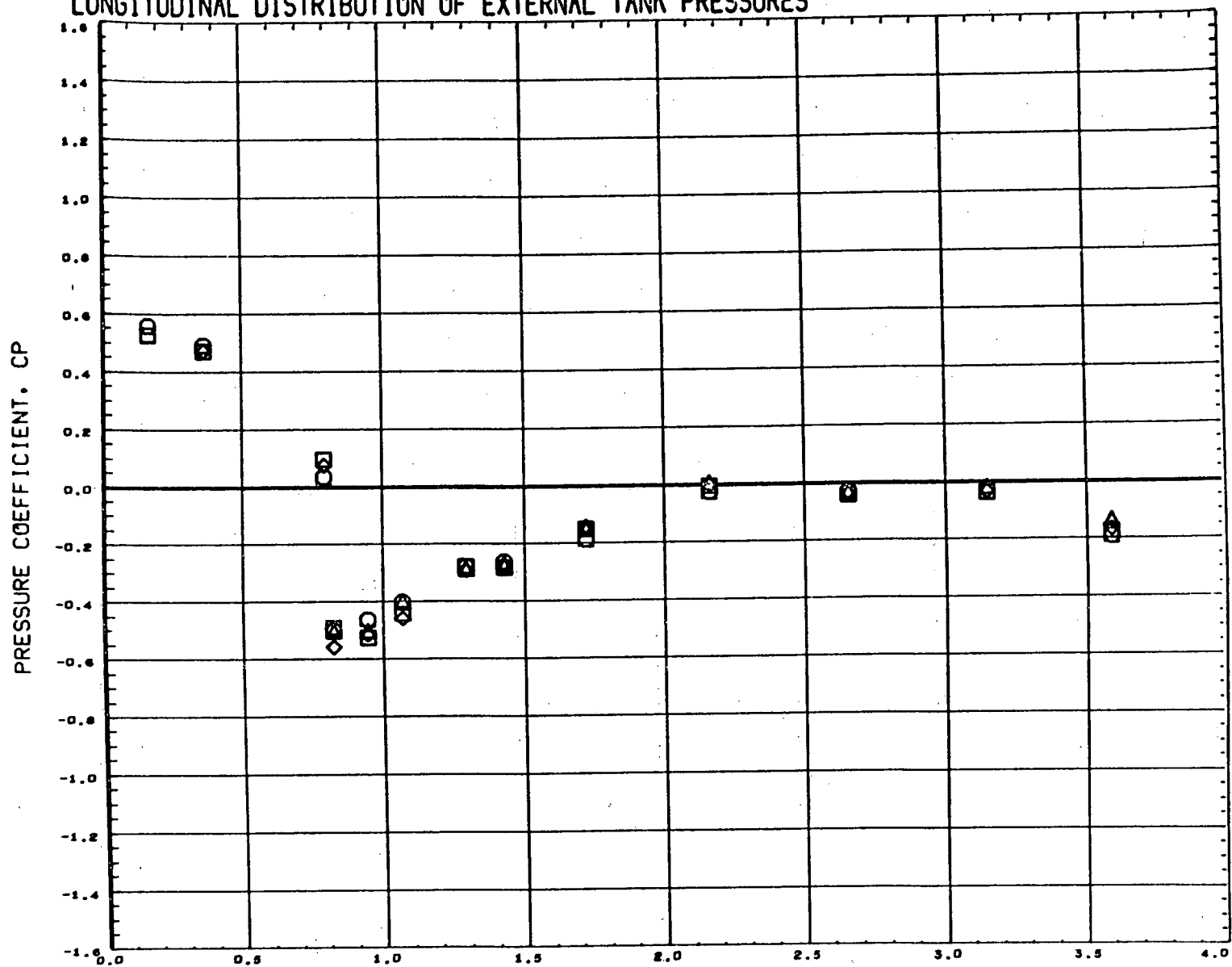
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(R70000)

PAGE 20

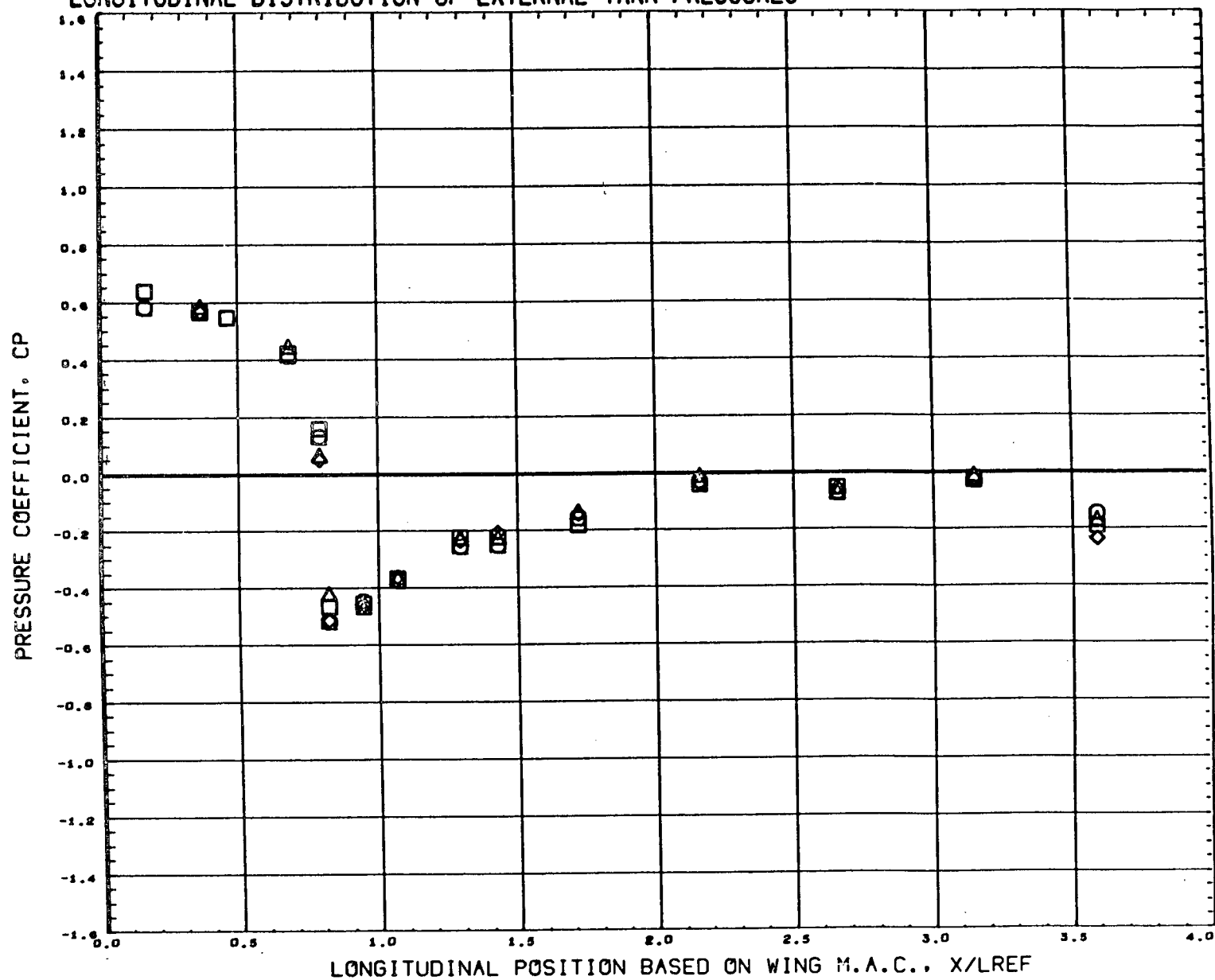
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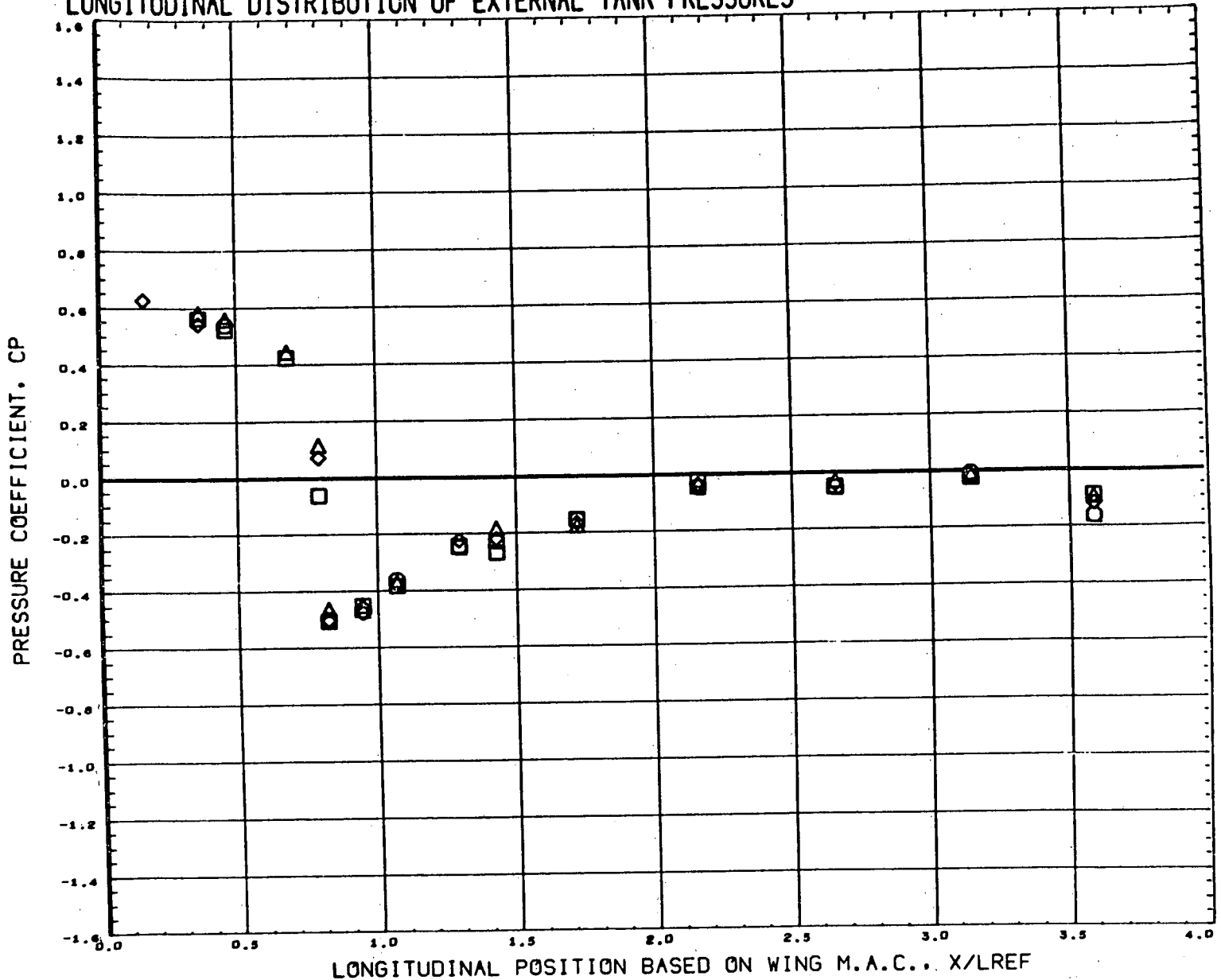
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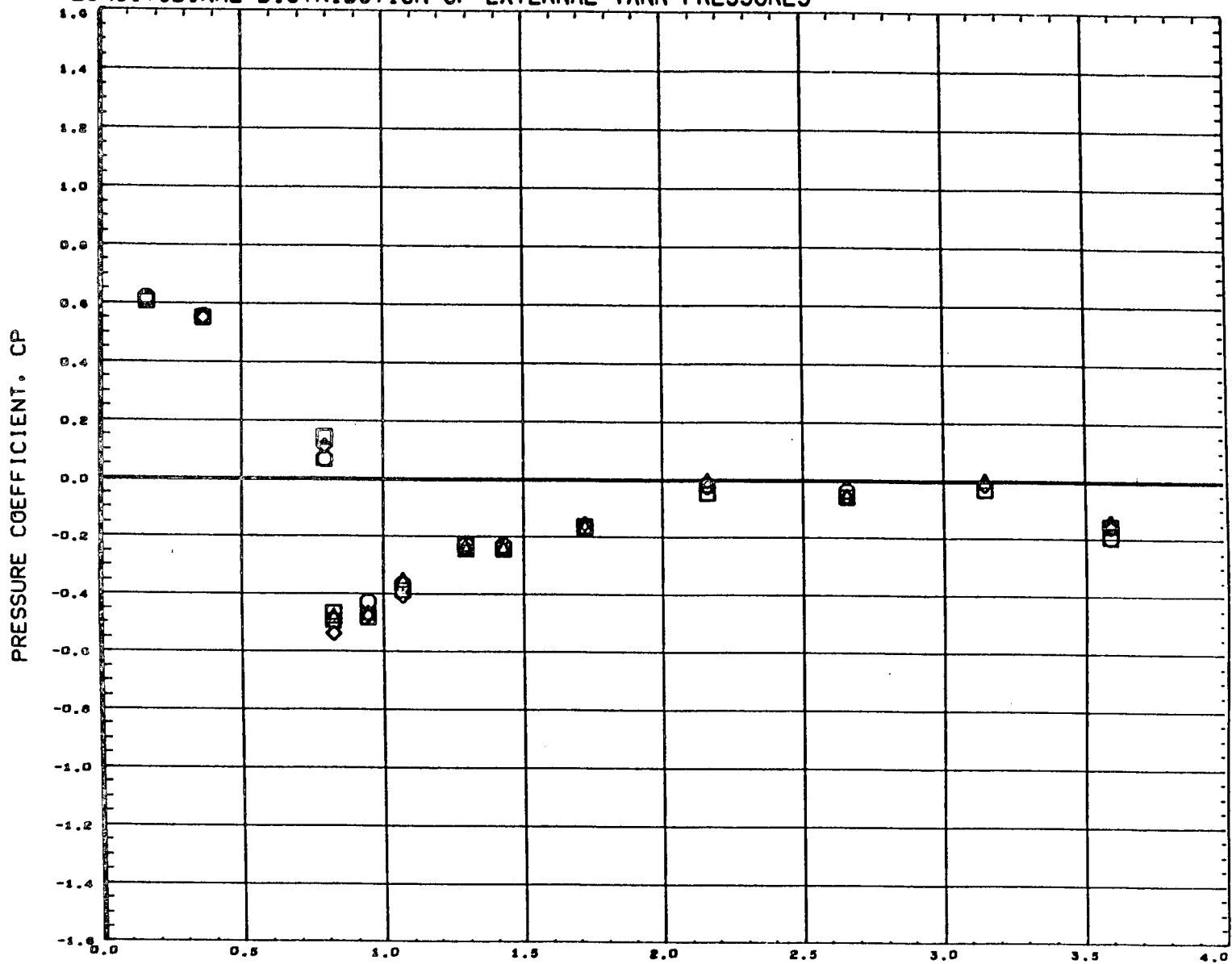
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PAGE 23

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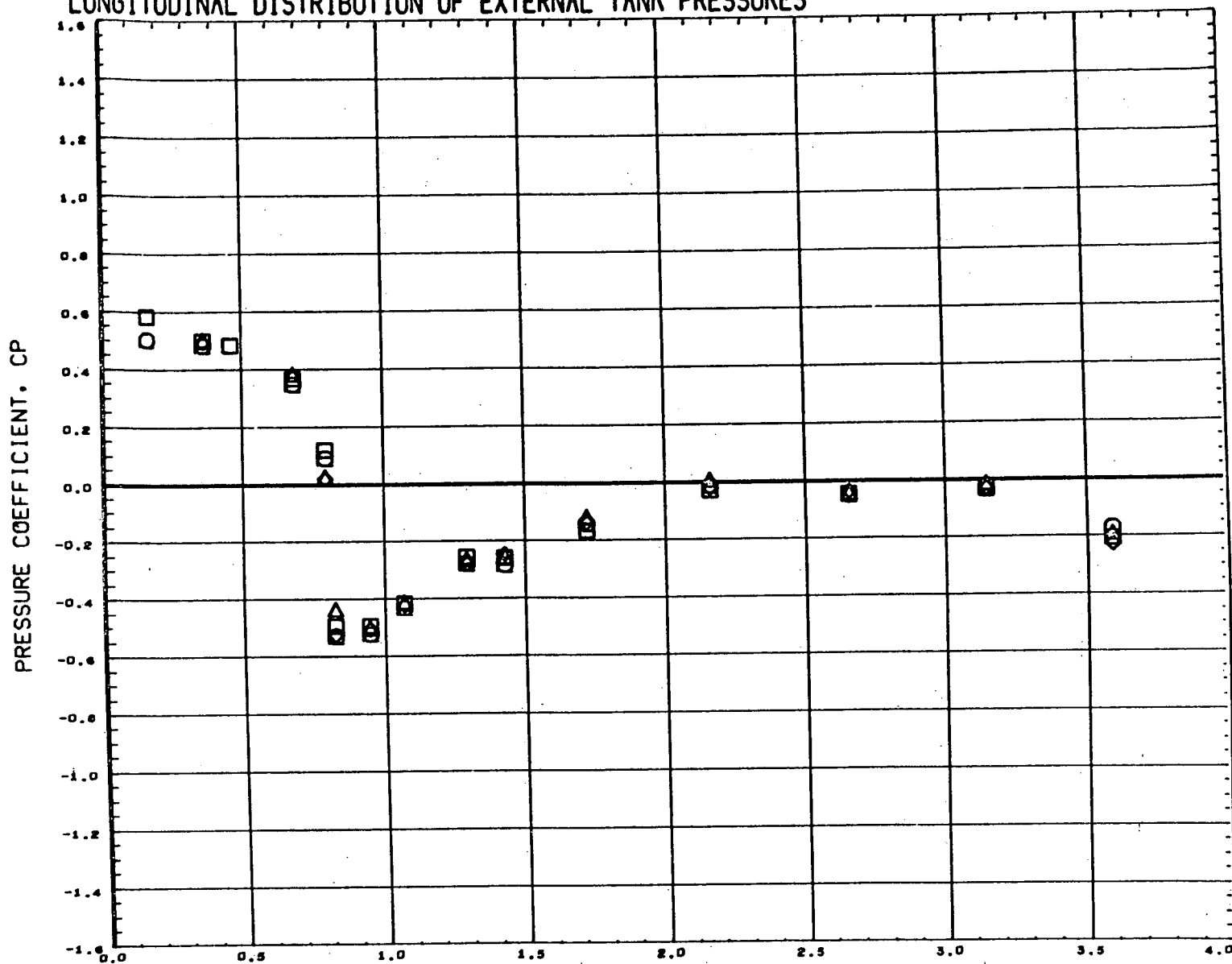
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PAGE 24

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



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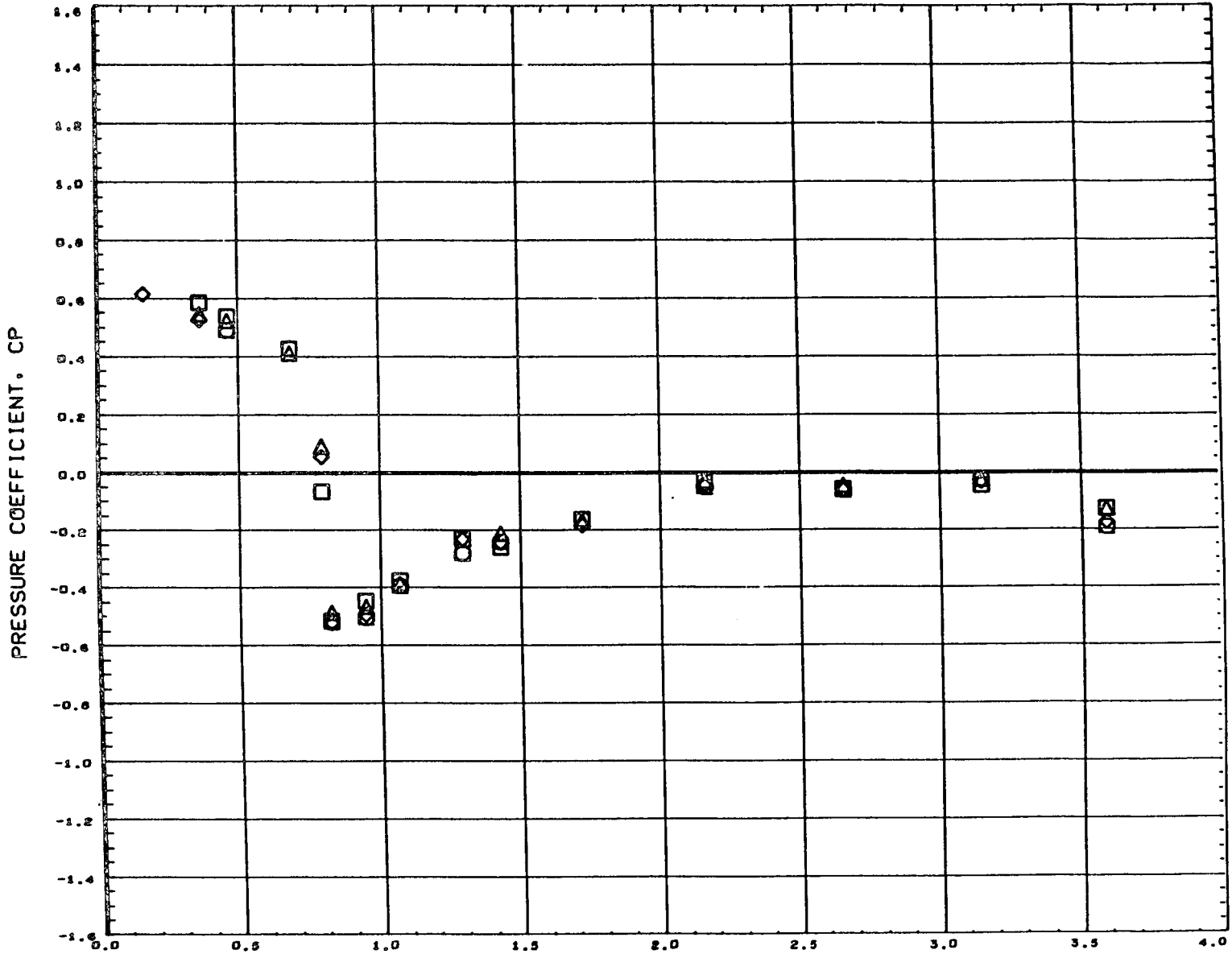
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PAGE 25

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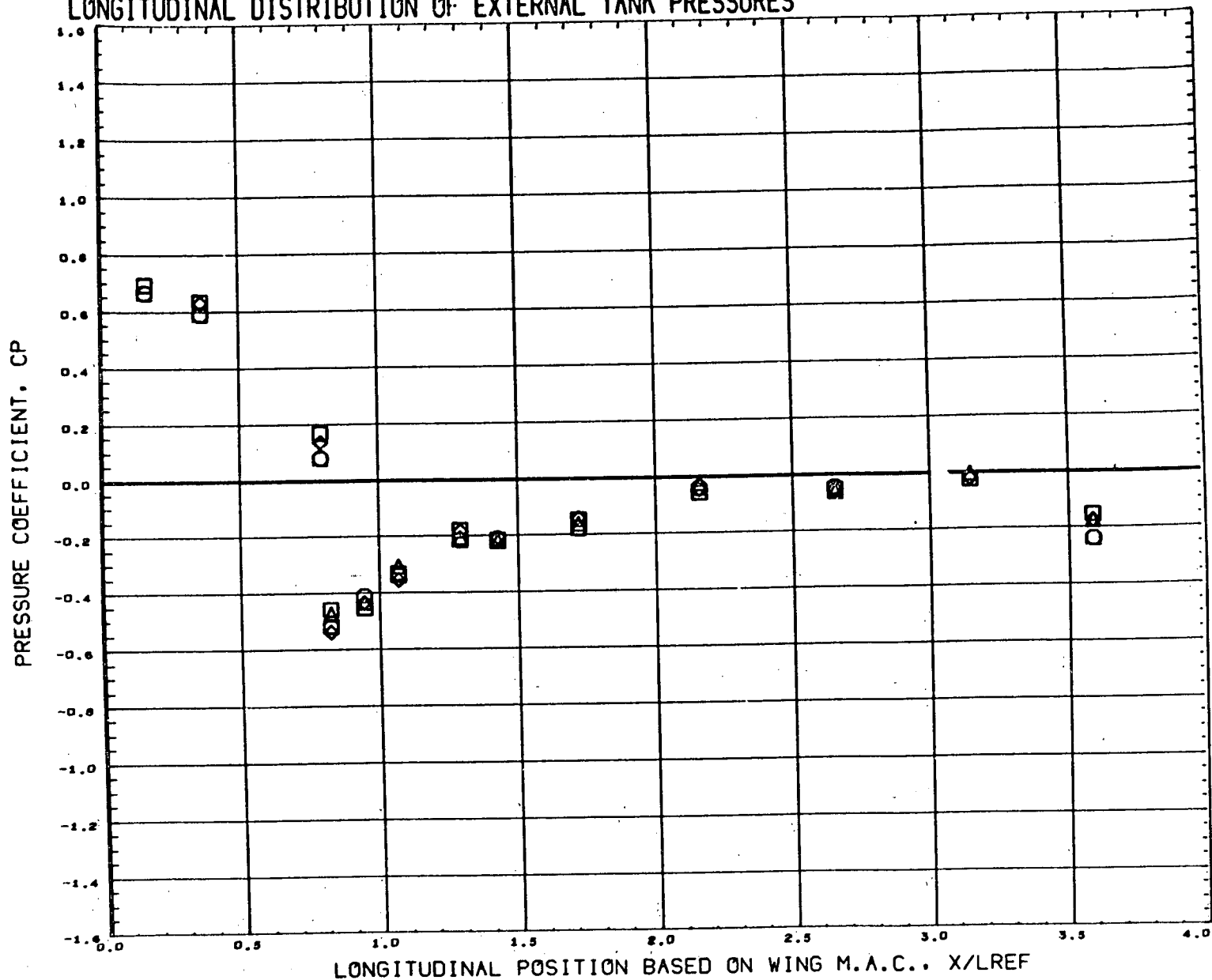
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PAGE 26

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	4.000	1.200		0.000
△	144.000				
◇	162.000				
□	180.000				

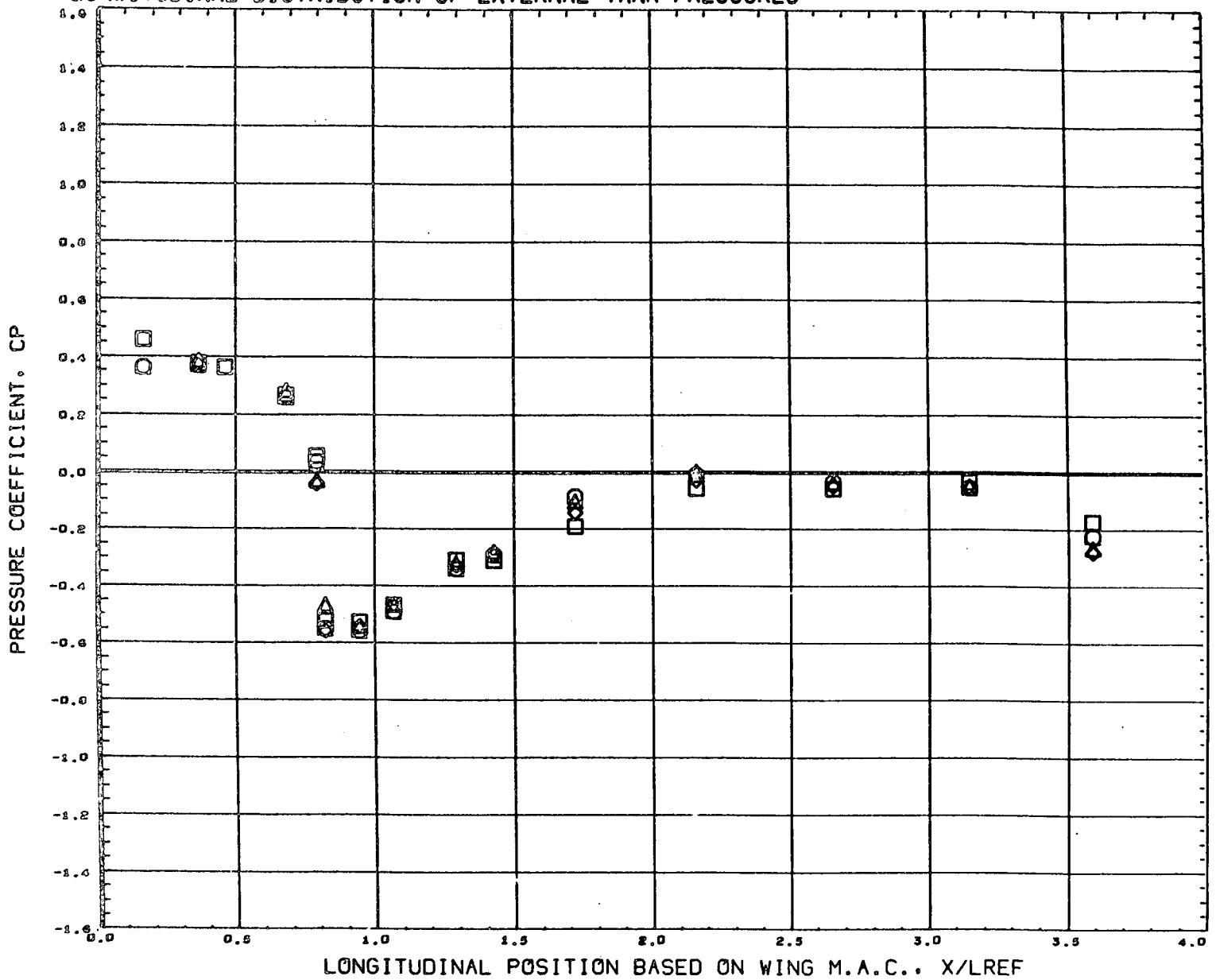
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 27

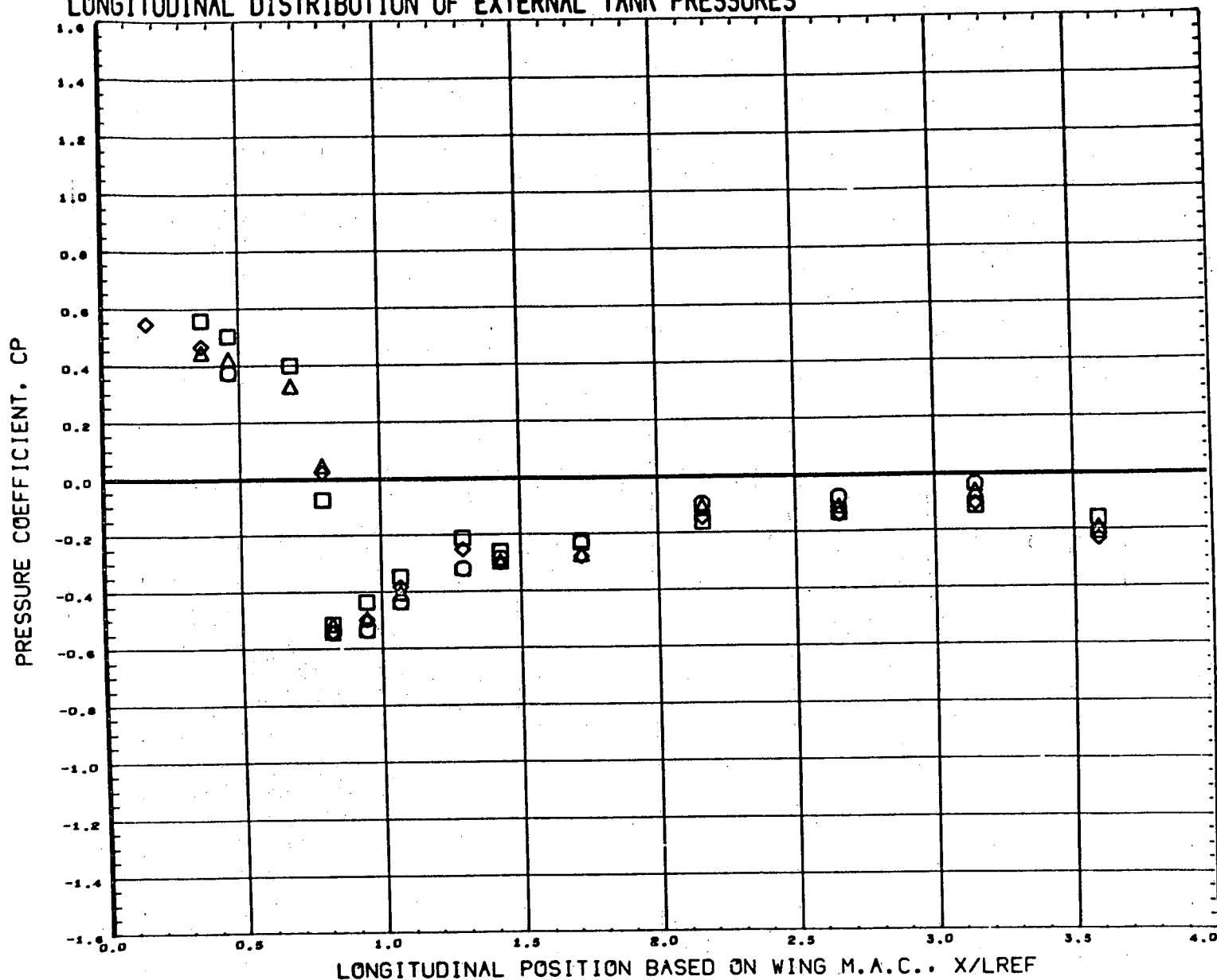
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	1.200		
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	10.000	1.200		0.000
△	75.000				
◇	90.000				
□	100.000				

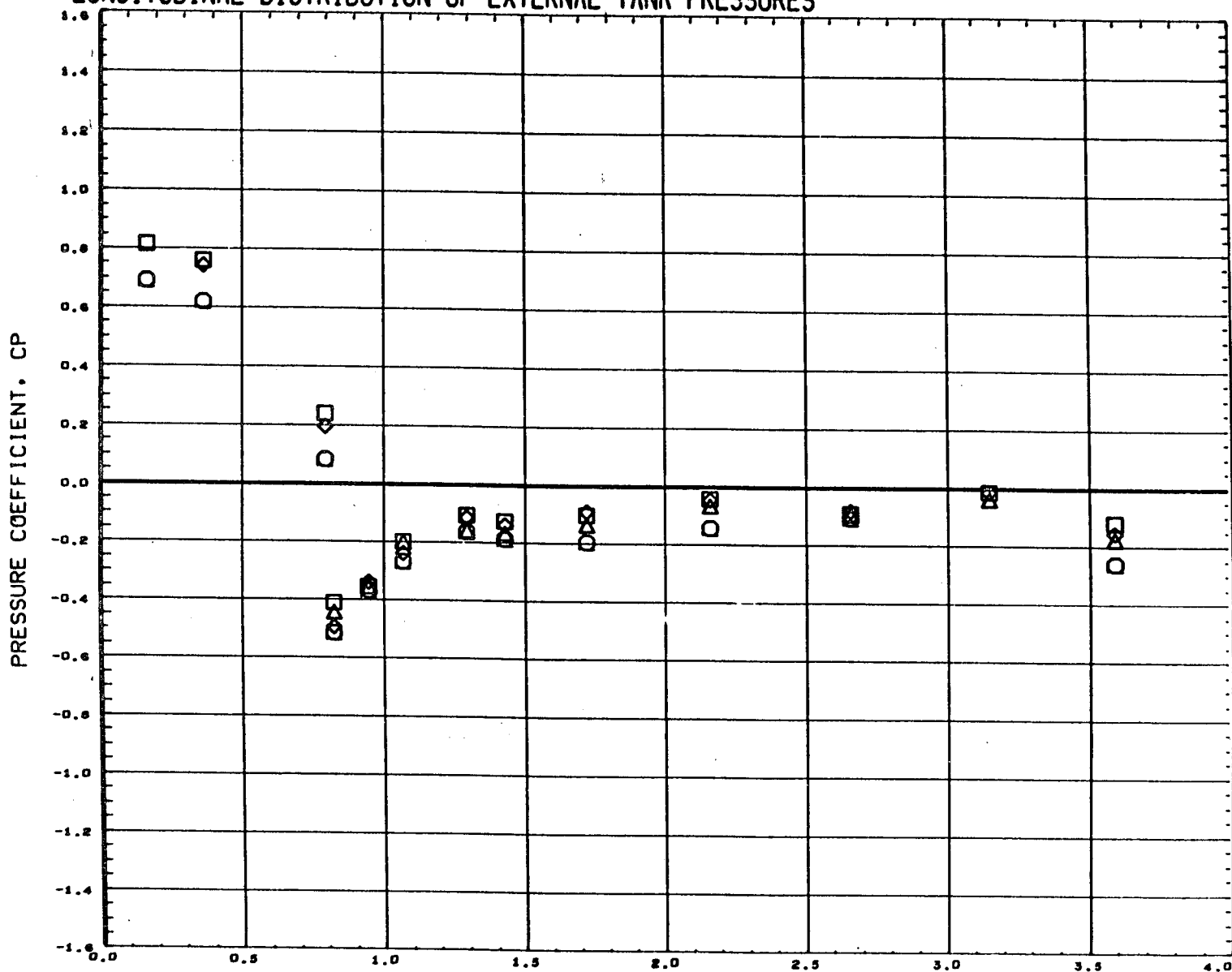
REFERENCE FILE

MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 29

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	10.000	1.200		0.000
△	144.000				
◇	162.000				
□	180.000				

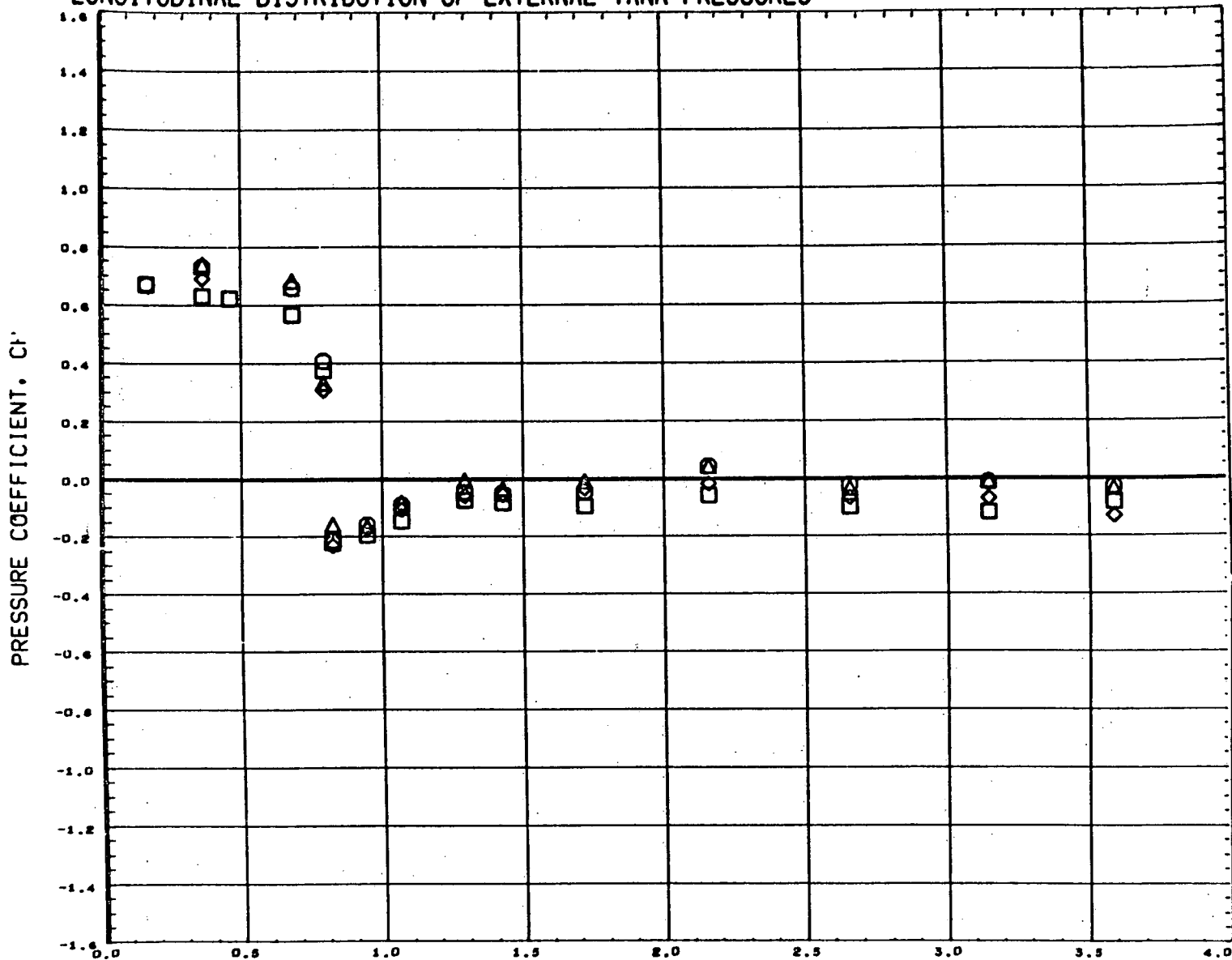
REFERENCE FILE

MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 30

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 10.000	1.460		0.000
△	15.000				
◇	30.000				
□	45.000				

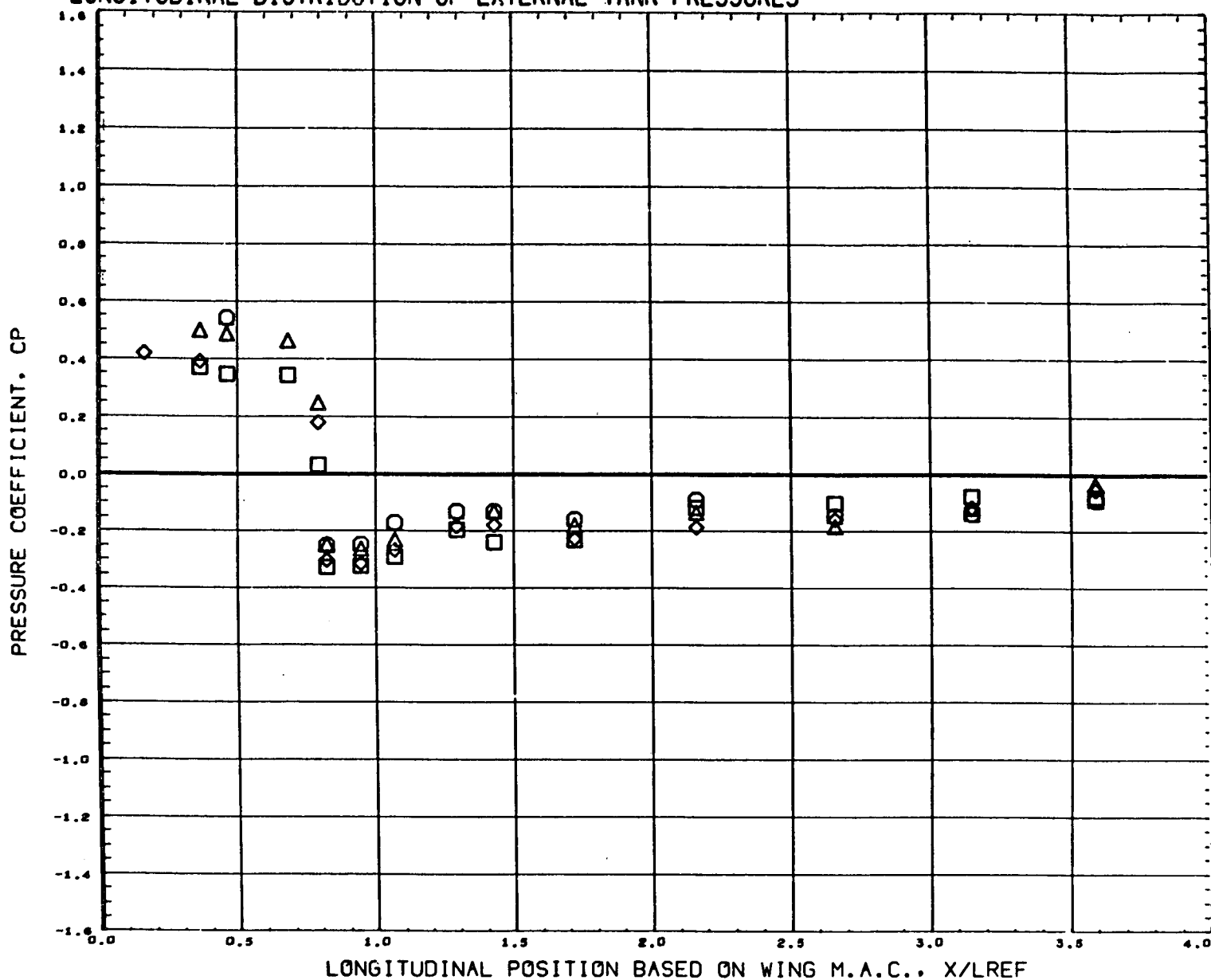
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MSFC 543-EXTERNAL TANK ALONE. T1

(R70000)

PAGE 31

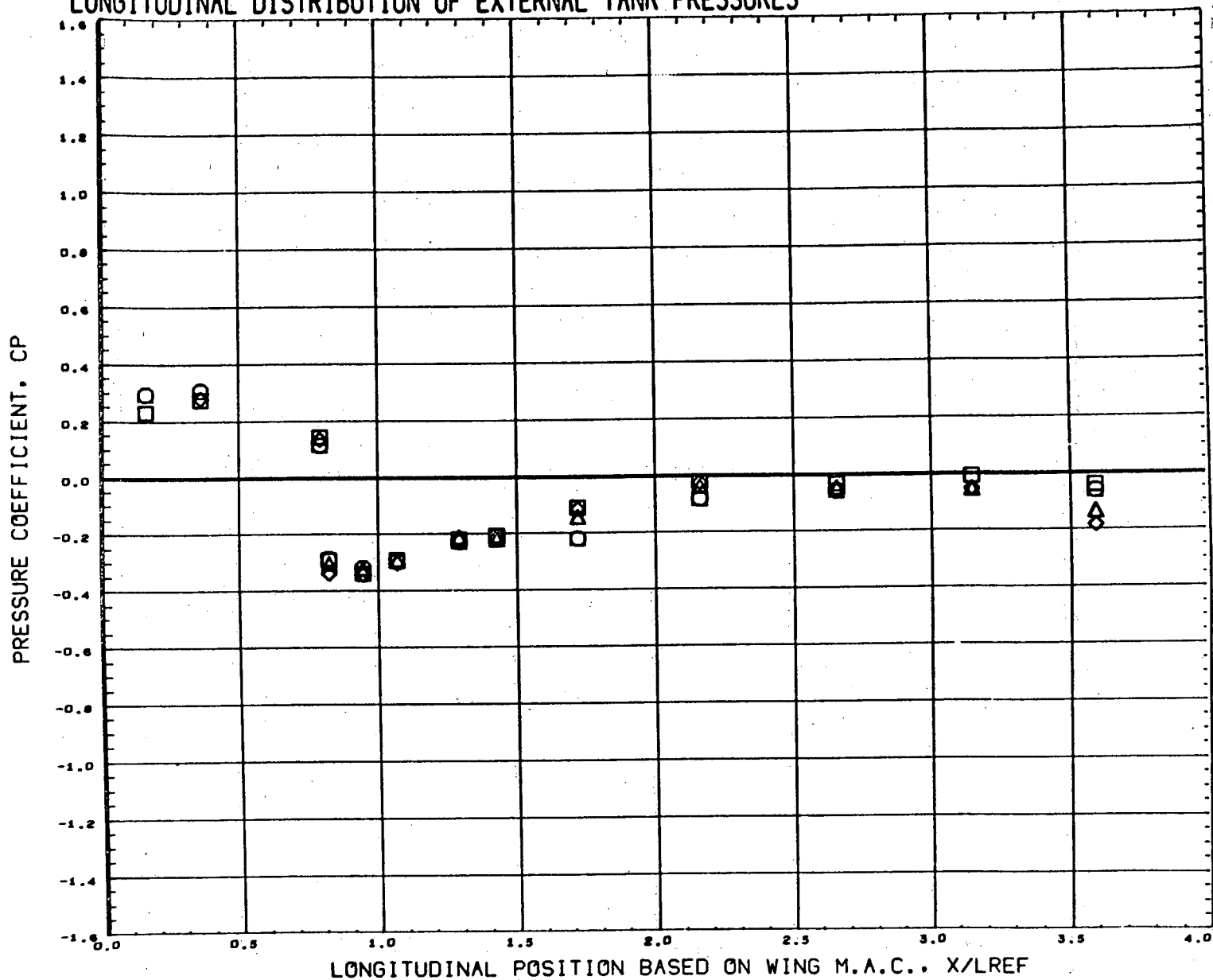
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES
○	60.000	- 10.000	1.460	BETA 0.000
△	75.000			
◇	90.000			
□	100.000			

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	- 10.000	1.460		0.000
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

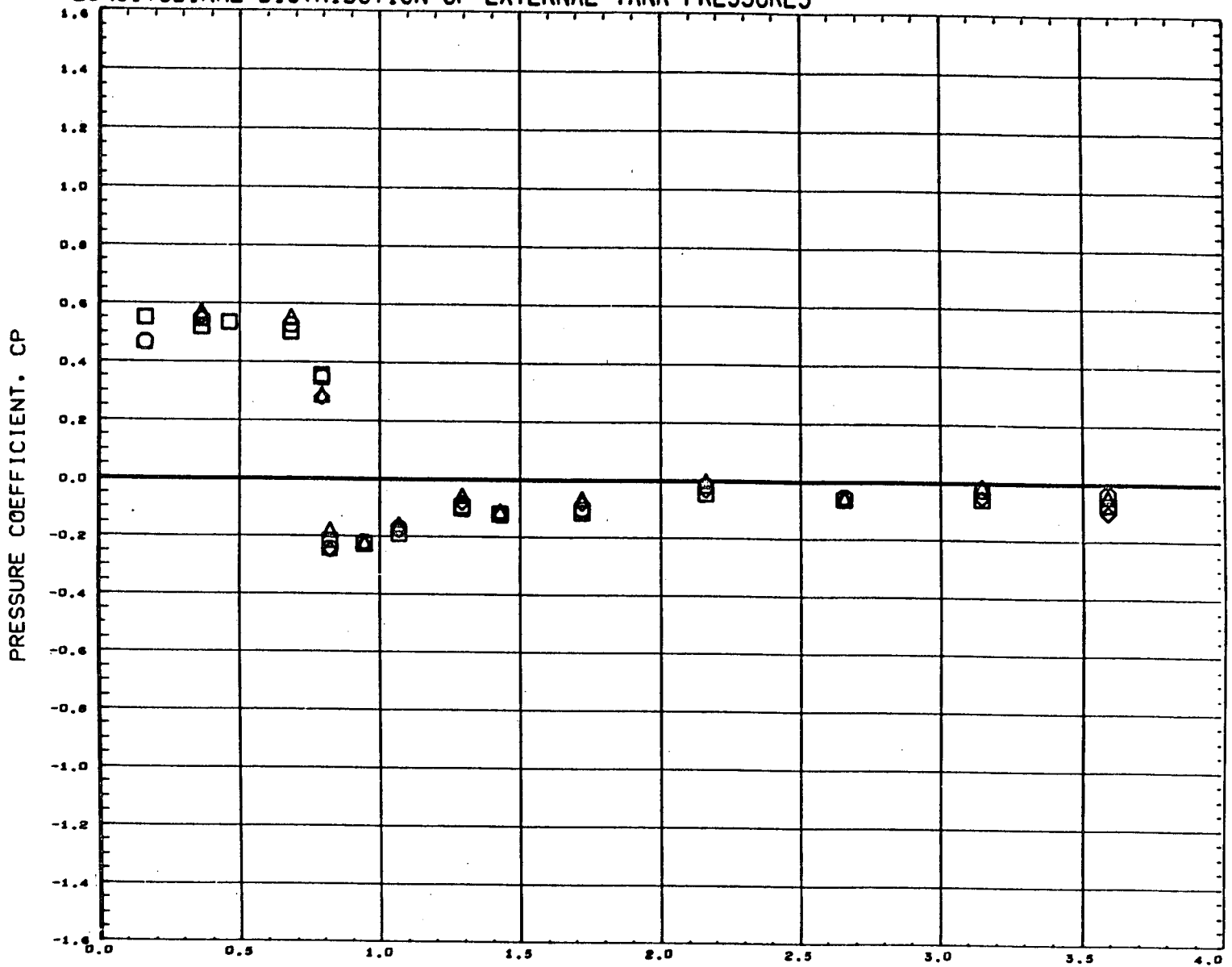
MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 33

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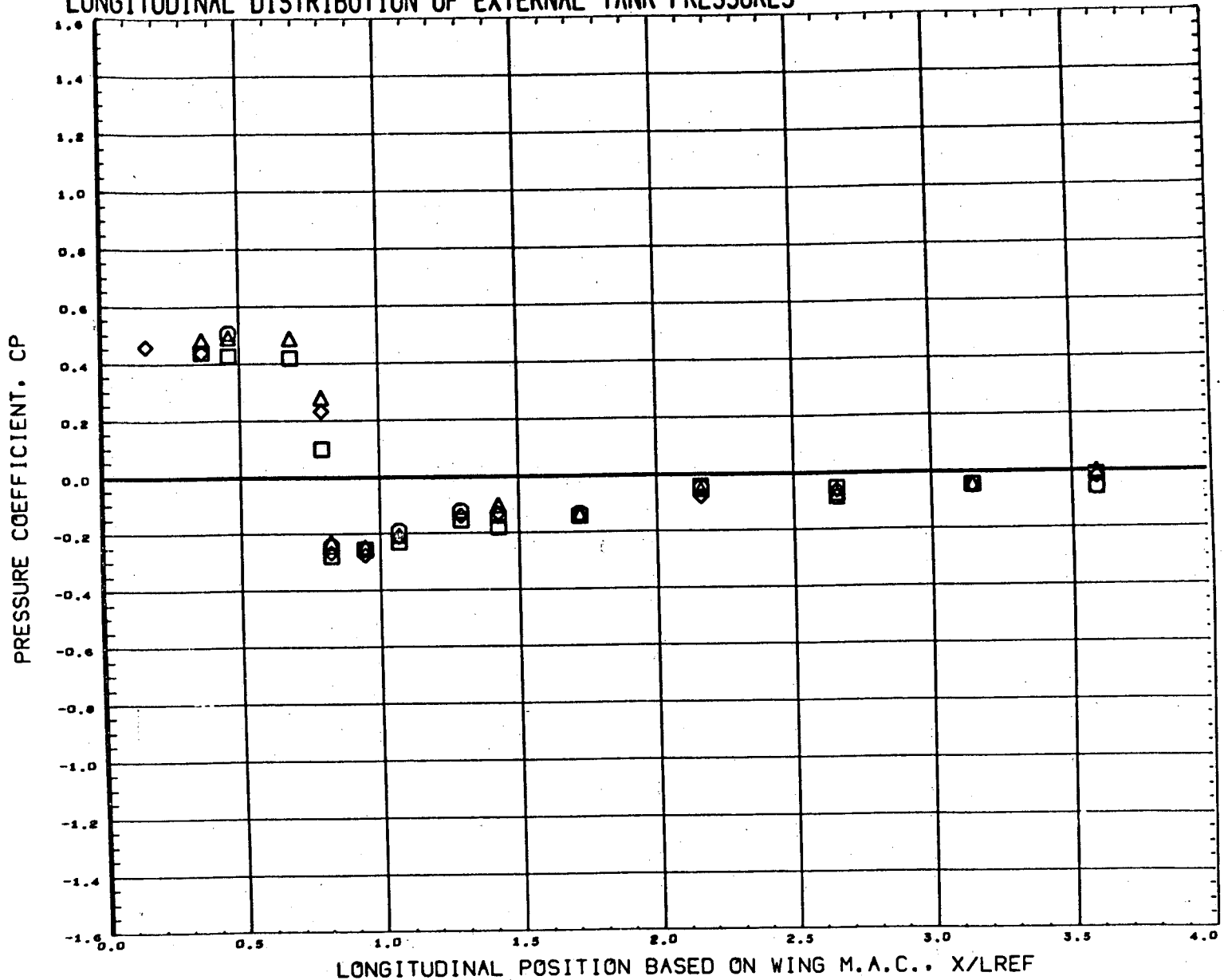
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 4.000	1.460		
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	4.000	1.460		0.000
△	75.000				
◇	90.000				
□	100.000				

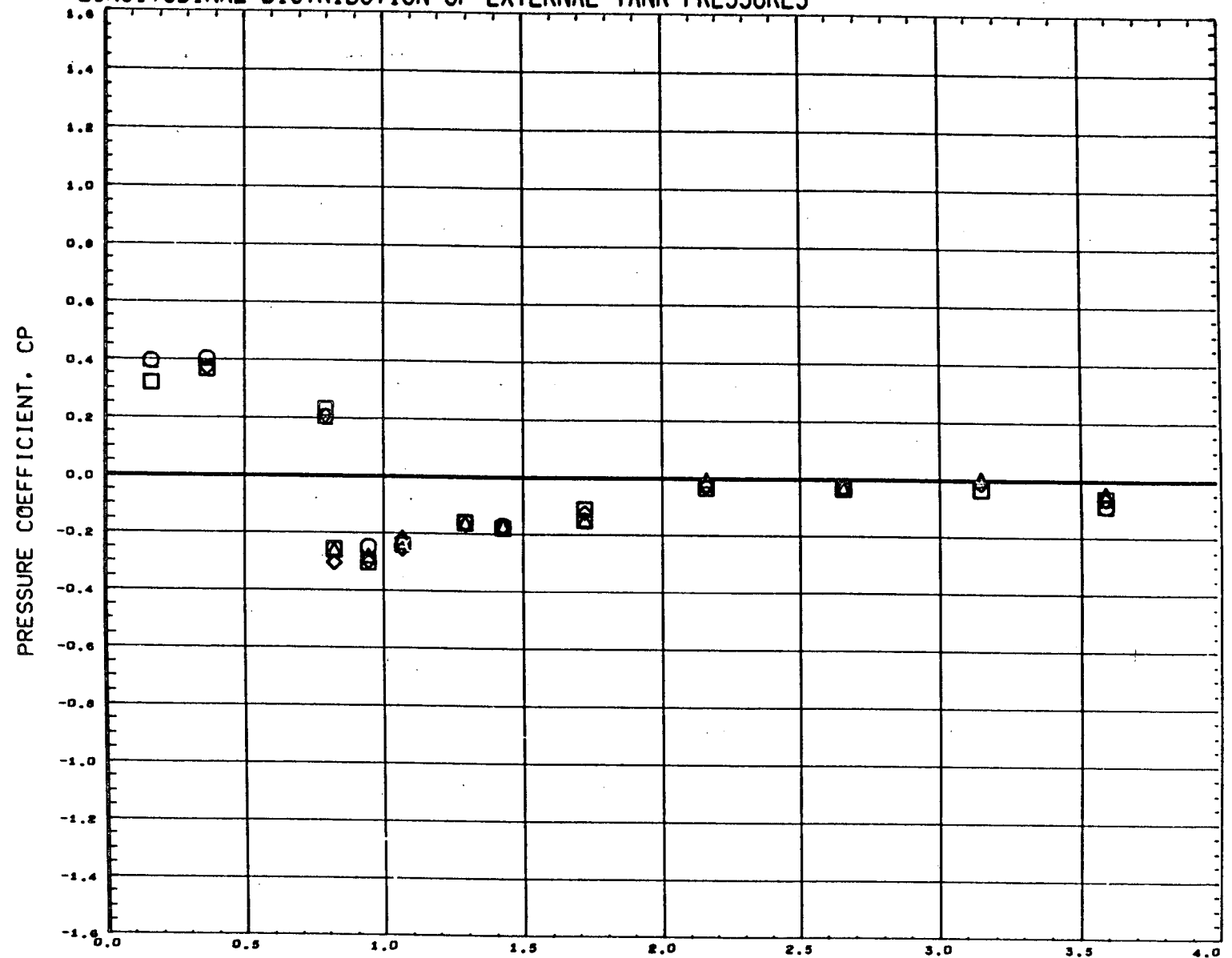
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 35

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	- 4.000	1.460		0.000
△	144.000				
◇	162.000				
□	180.000				

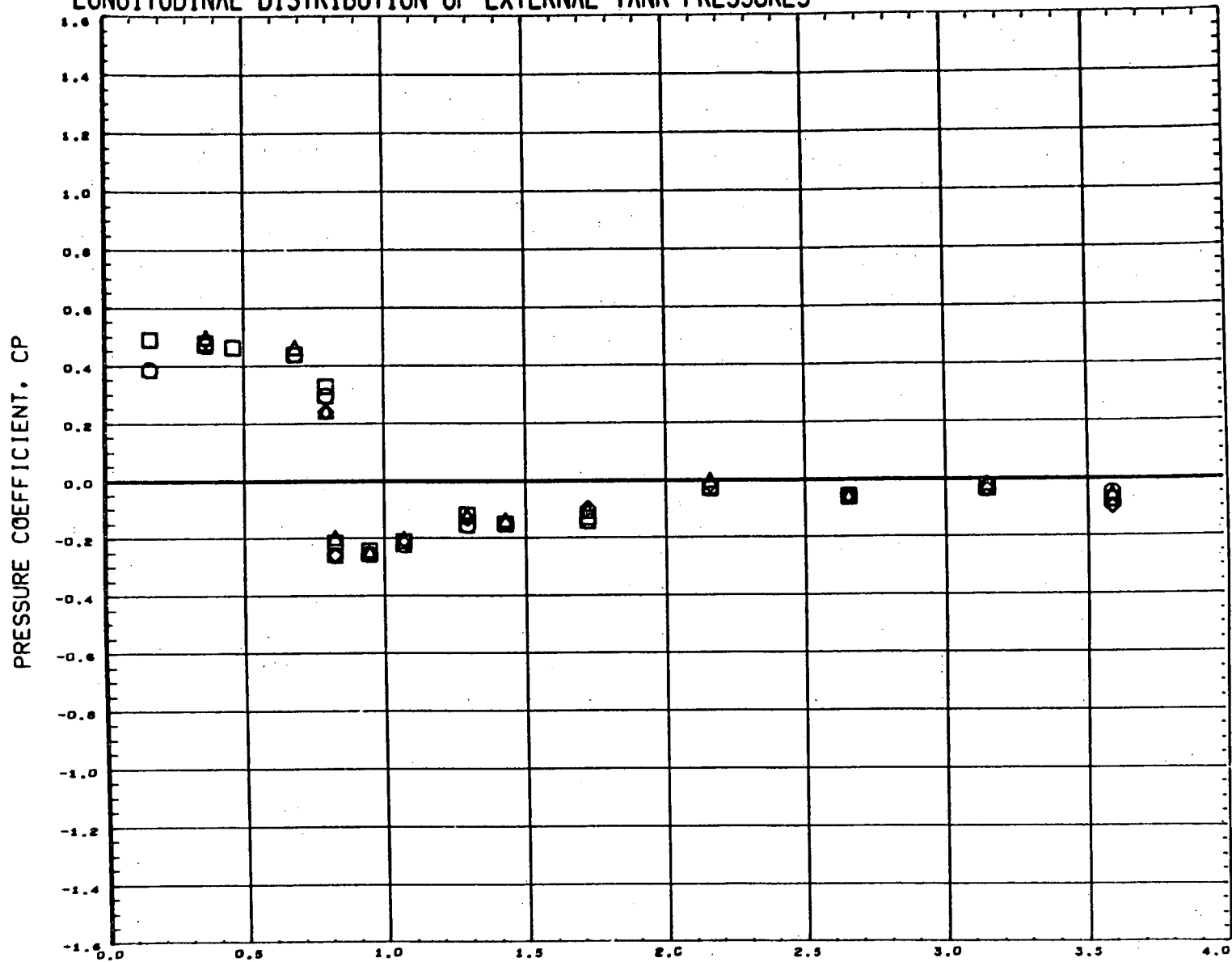
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 36

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	0.000	1.460		0.000
△	15.000				
◇	30.000				
□	45.000				

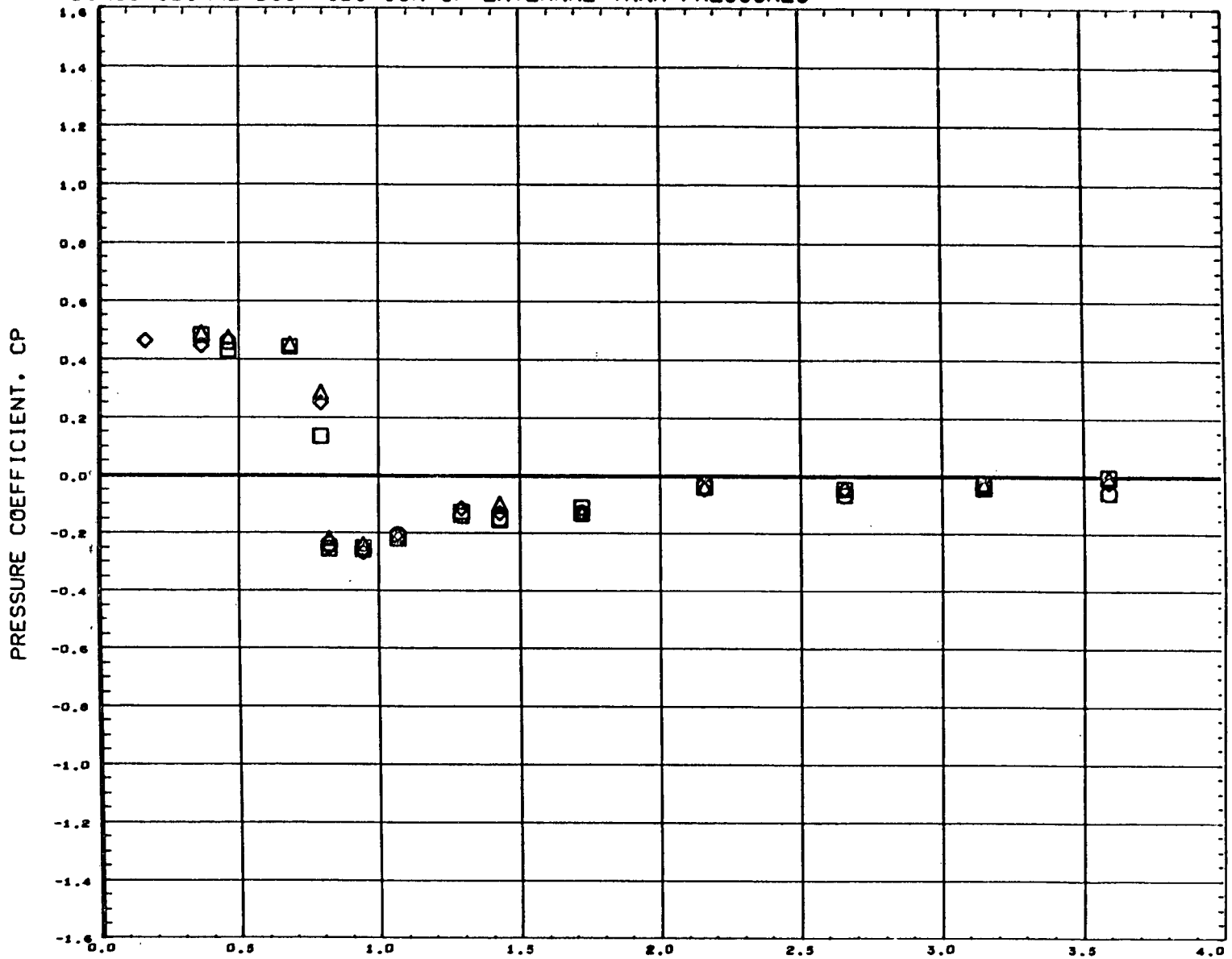
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 37

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

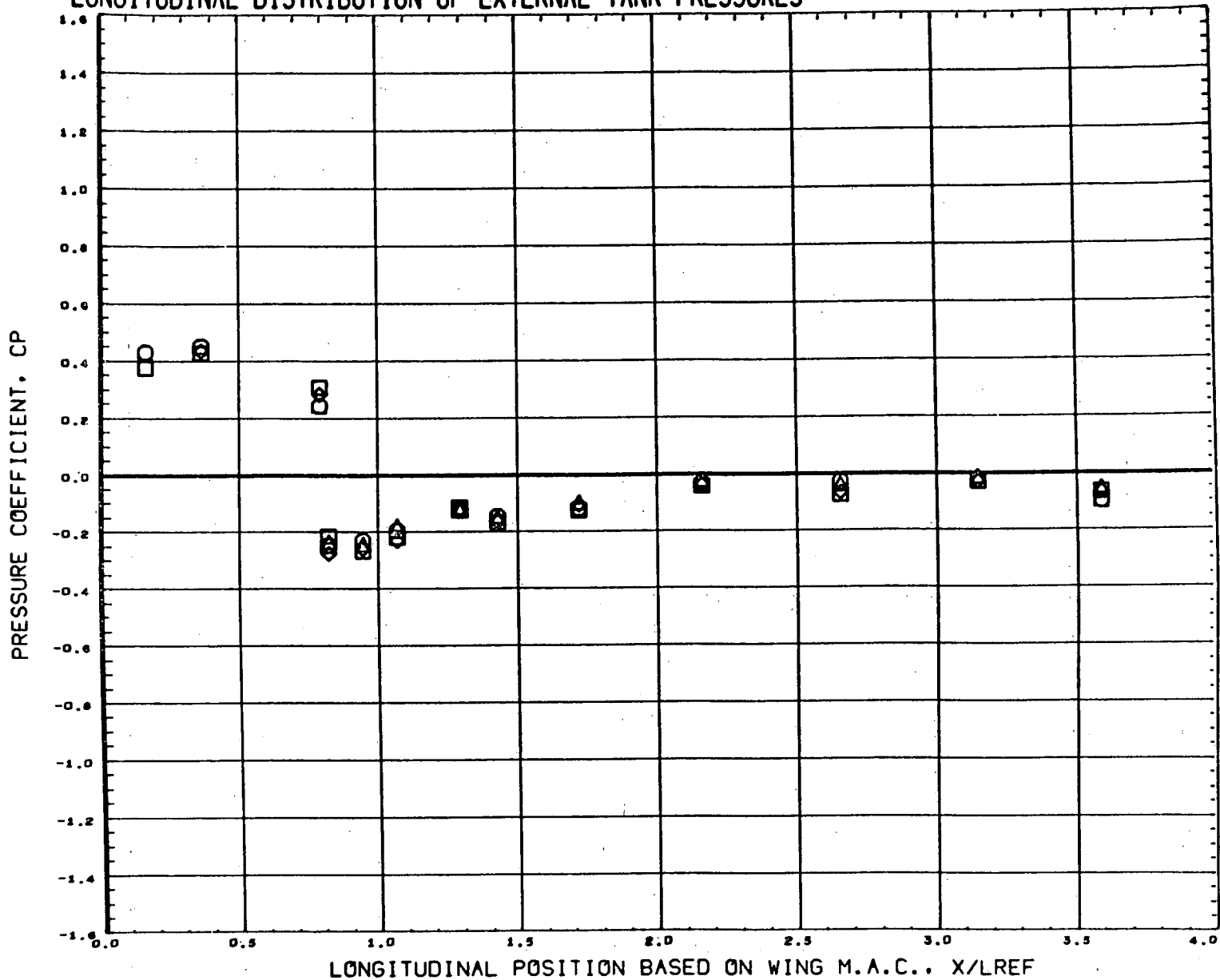


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
◇	60.000	0.000	1.460		
△	75.000				
□	90.000				
○	100.000				

REFERENCE FILE

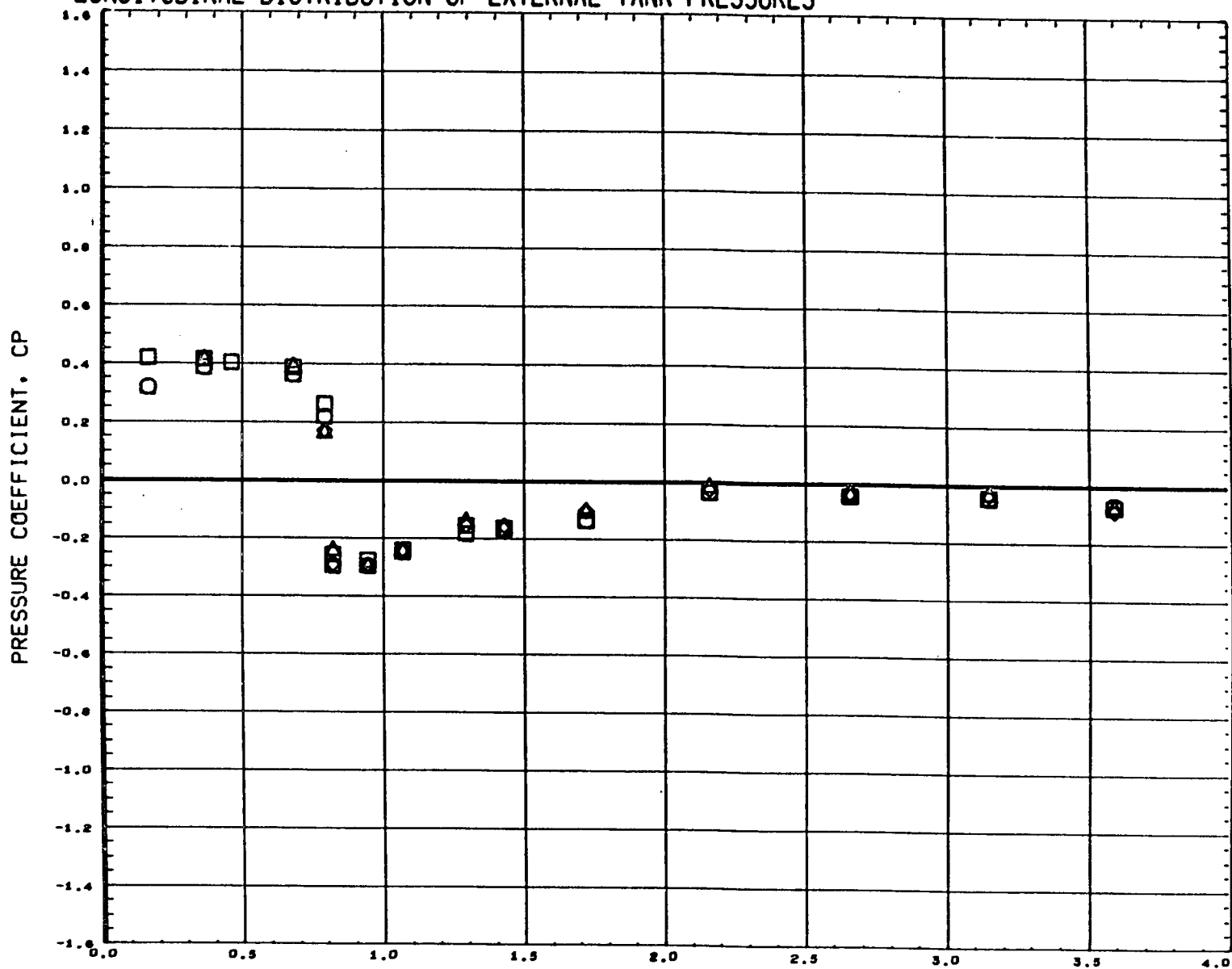
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	0.000	1.460		
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	4.000	1.460		
◇	15.000				
△	30.000				
□	45.000				

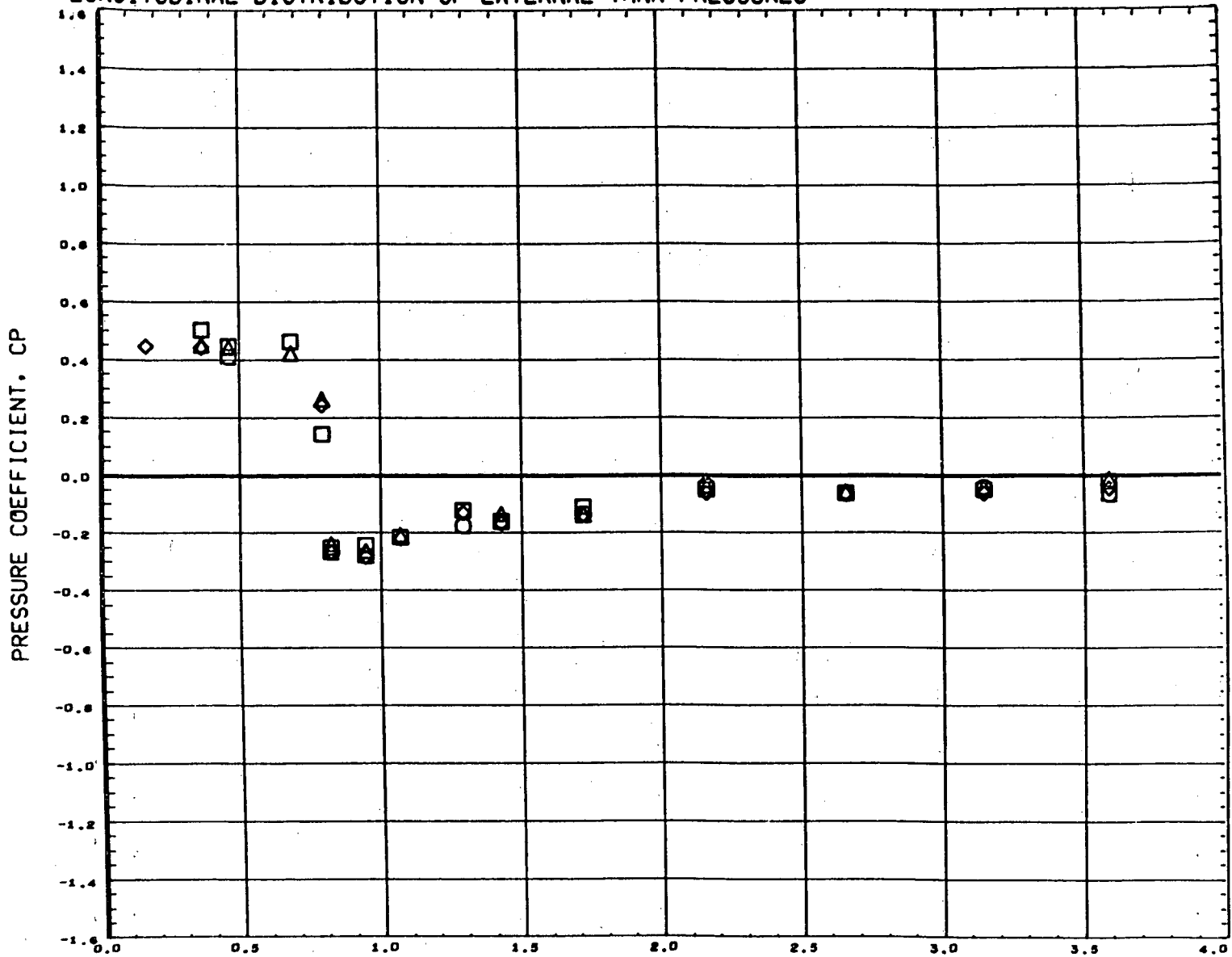
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 40

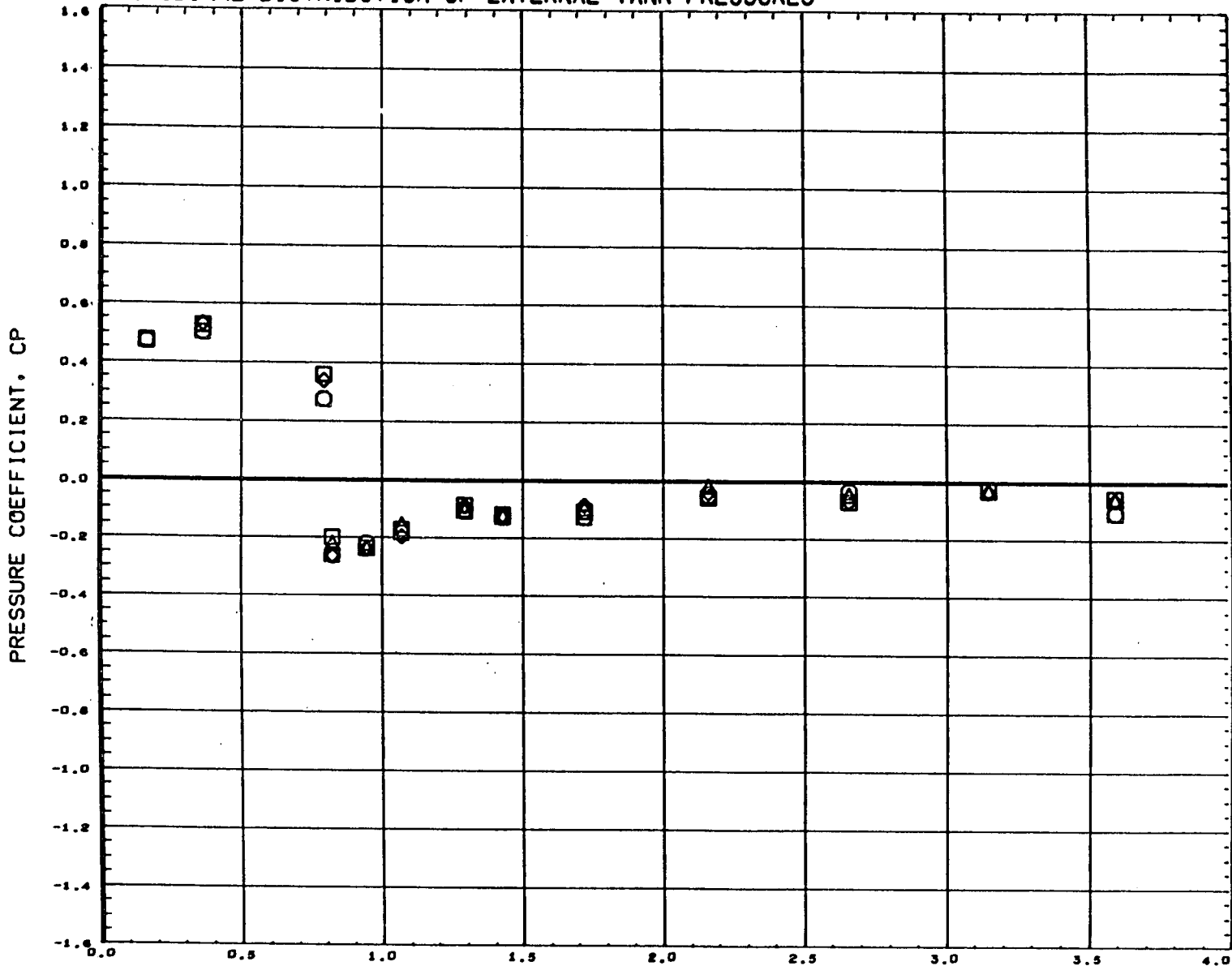
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	4.000	1.460		
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	4.000	1.460
△	144.000		
◇	162.000		
□	180.000		

BETA 0.000
PARAMETRIC VALUES

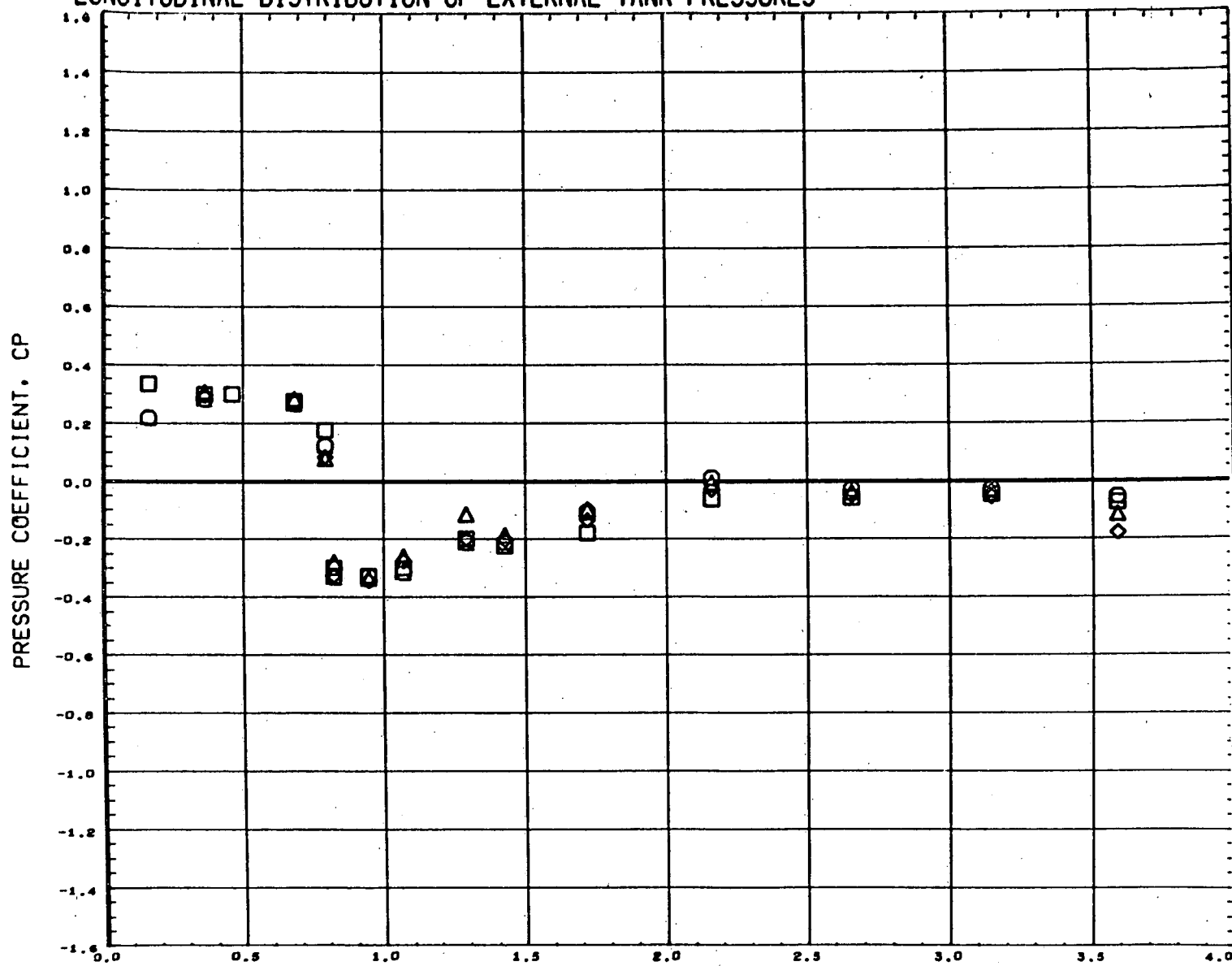
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 42

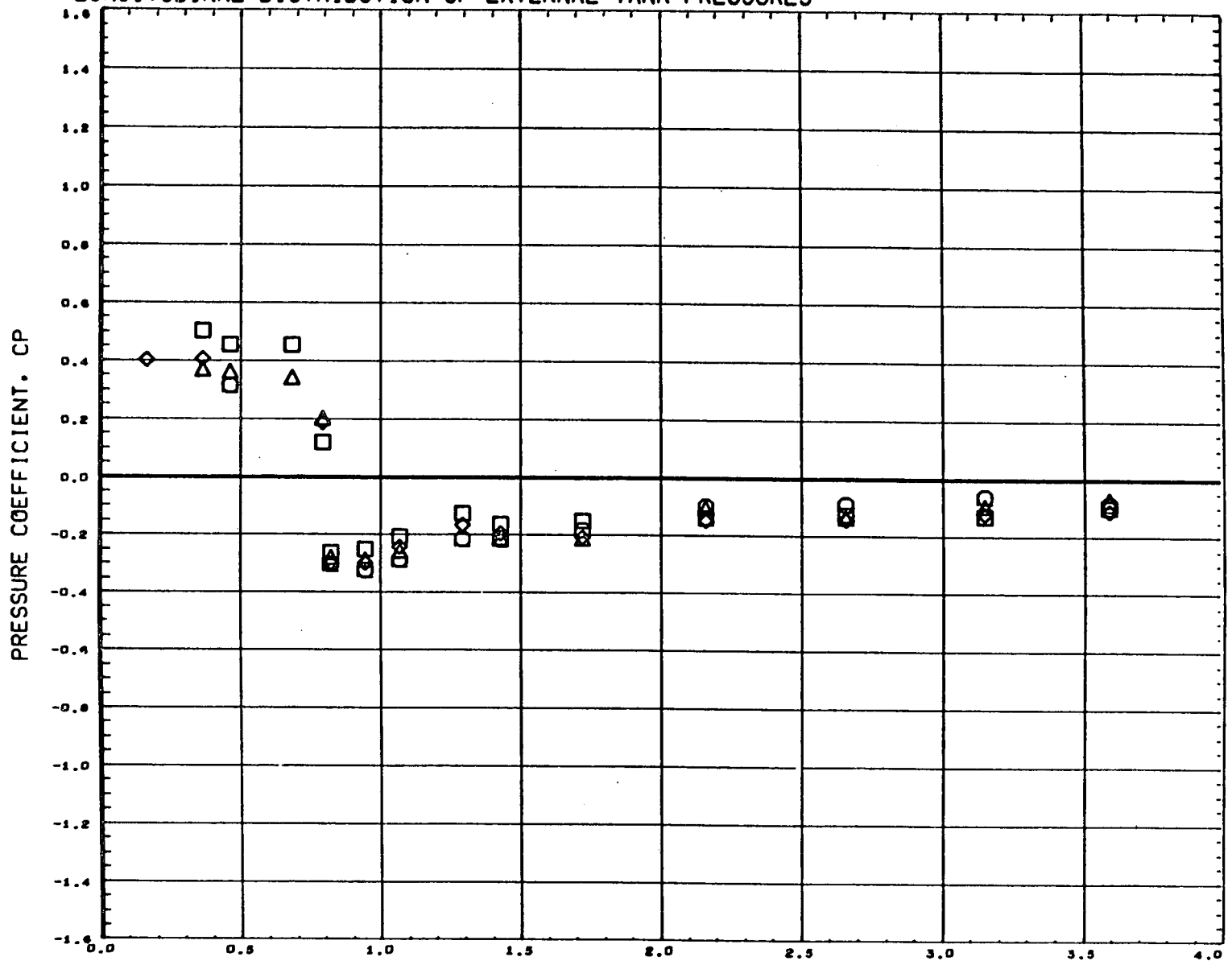
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	1.460		0.000
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



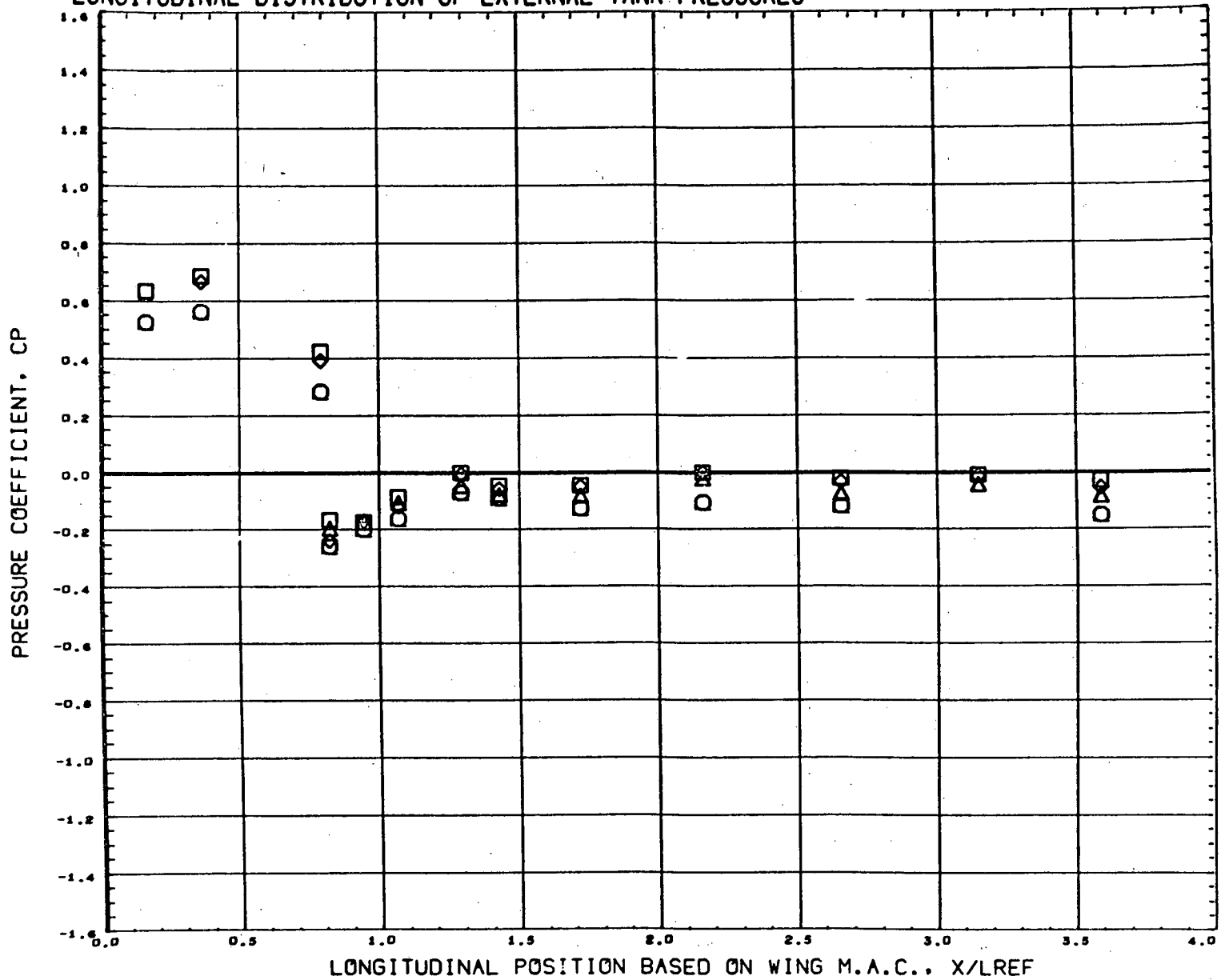
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.460
△	75.000		
◇	90.000		
□	100.000		

BETA
PARAMETRIC VALUES
0.000

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	10.000	1.460		0.000
△	144.000				
◇	162.000				
□	180.000				

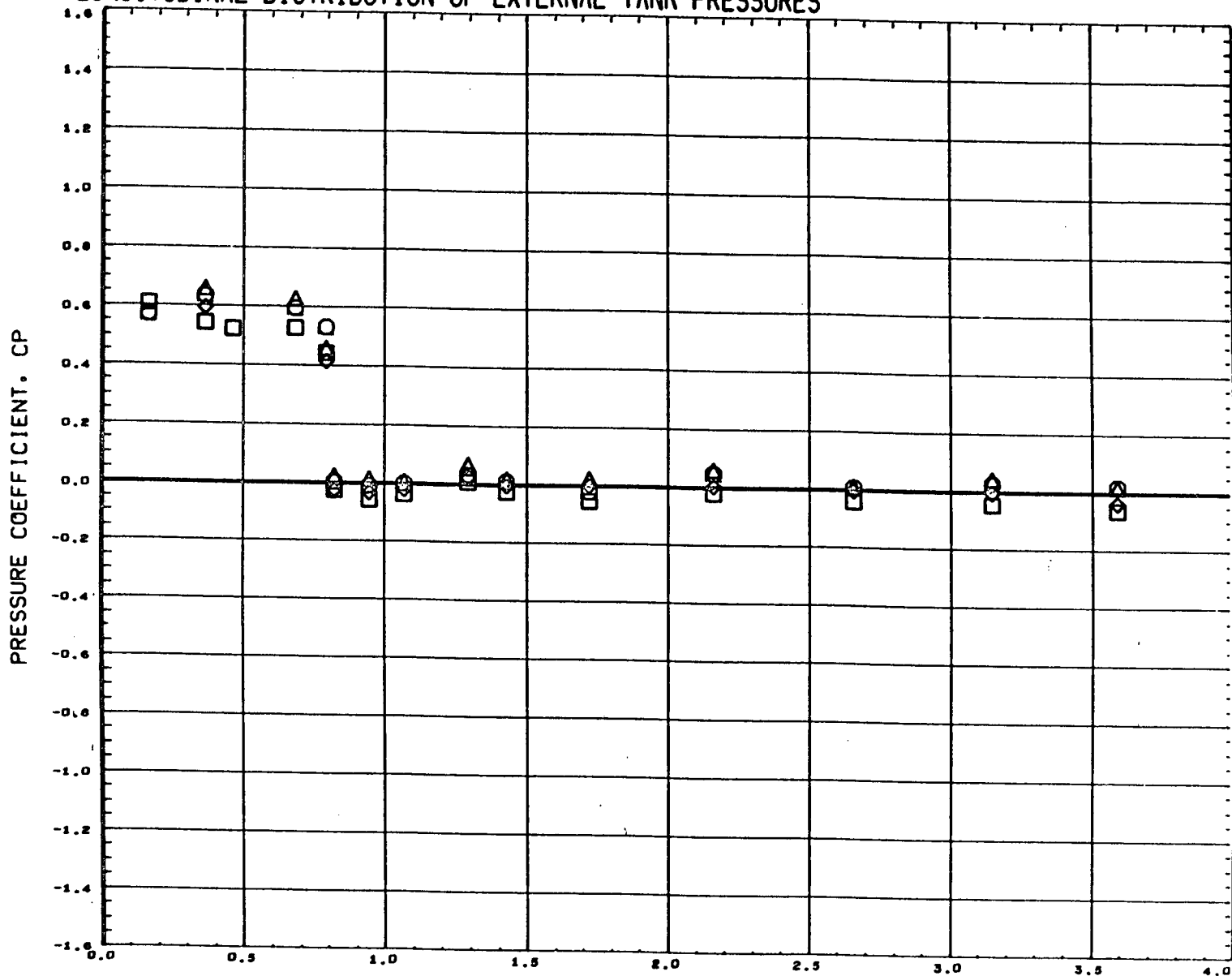
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 45

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 10.000	1.960		
△	15.000				
◇	30.000				
□	45.000				

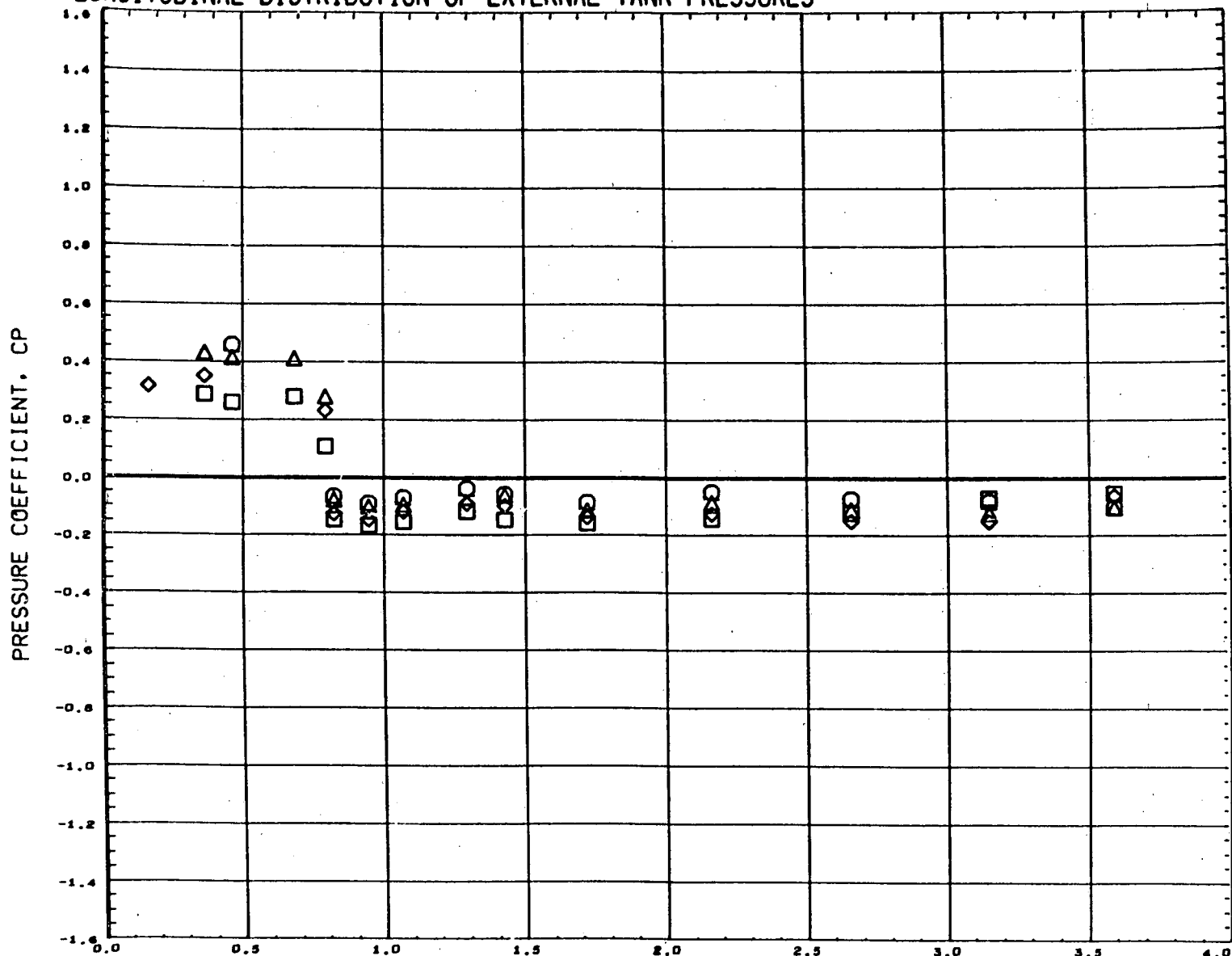
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 46

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	- 10.000	1.960		
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

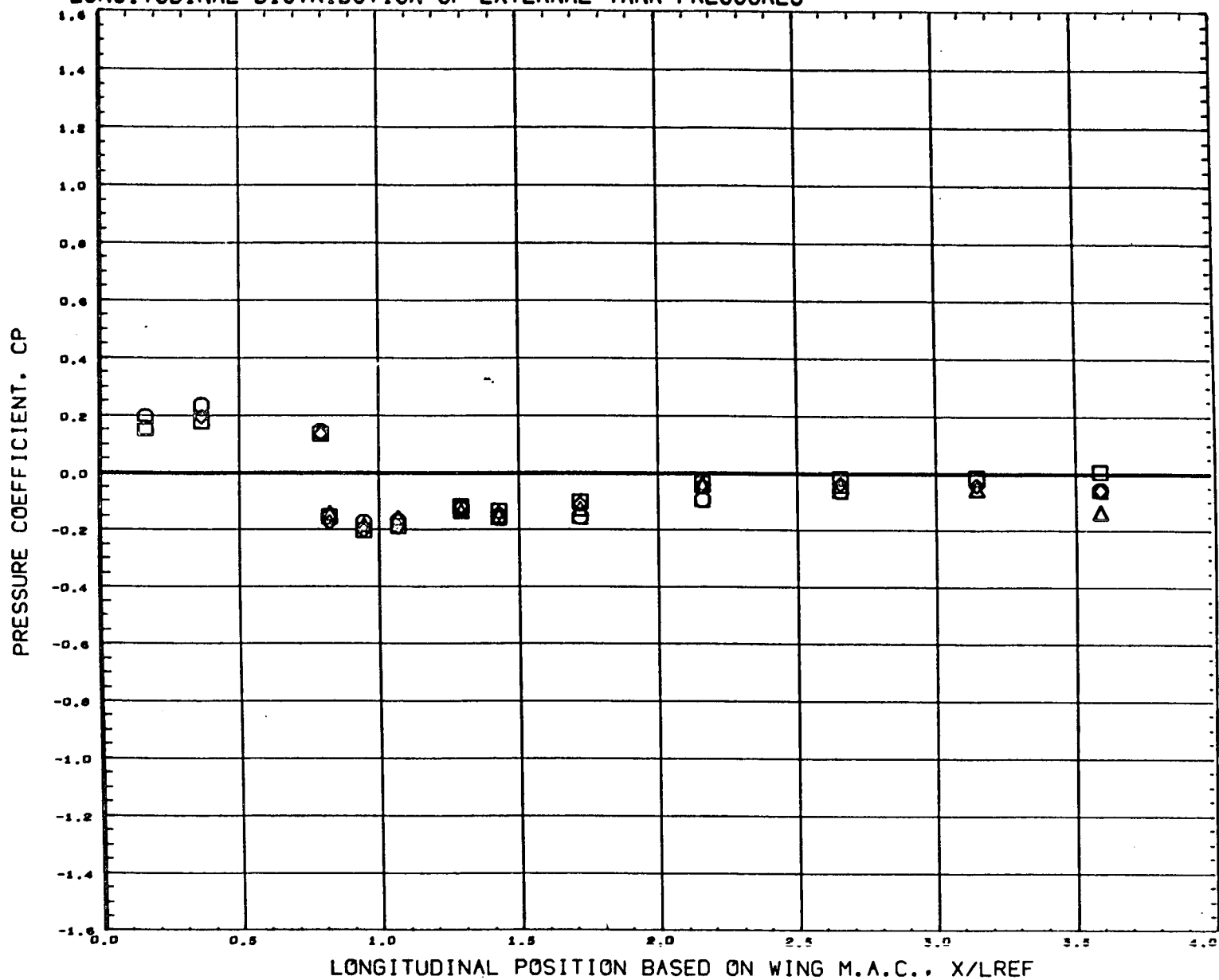
MSFC 543-EXTERNAL TANK ALONE. T1

(R70000)

PAGE 47

G

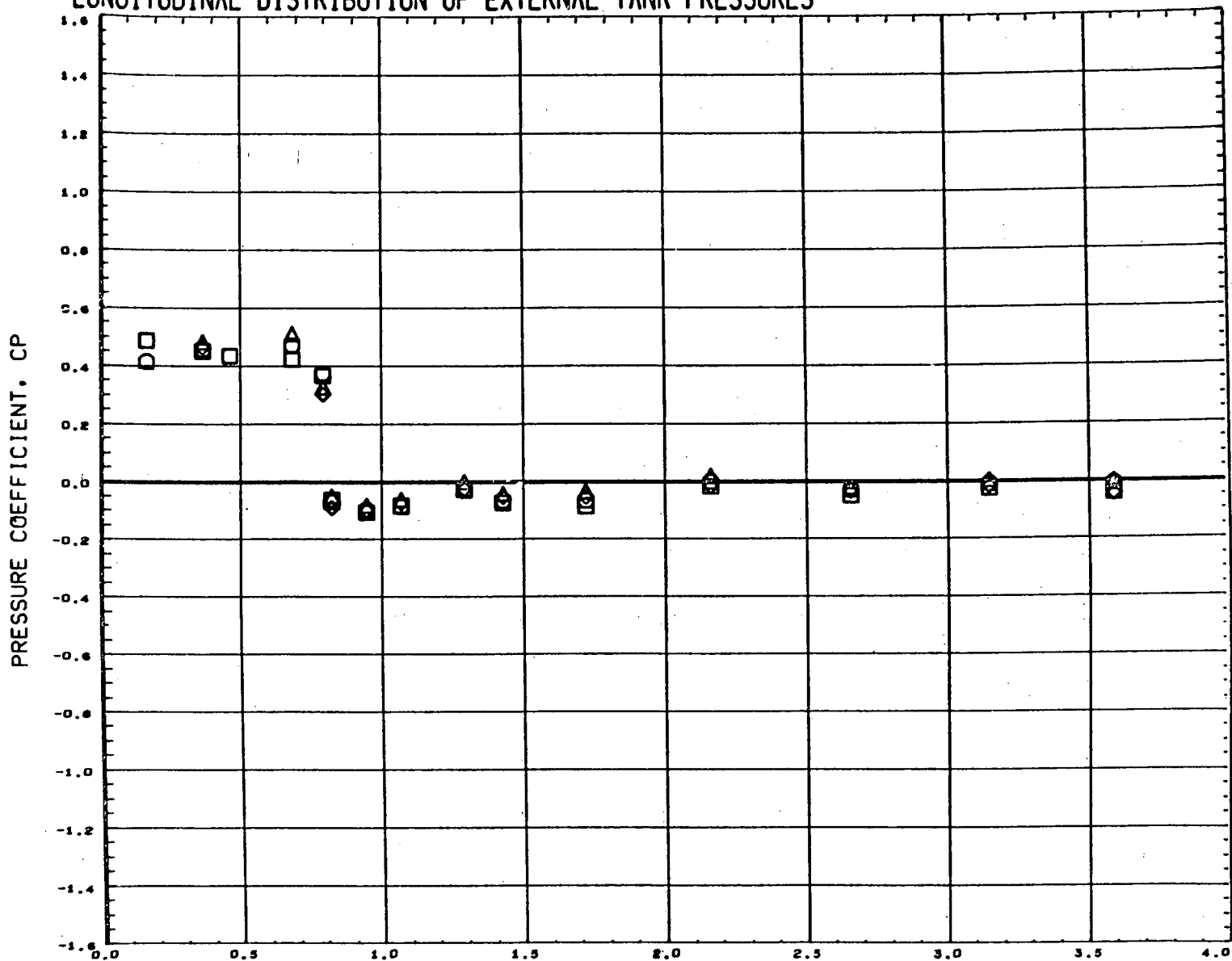
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	- 10.000	1.960		
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

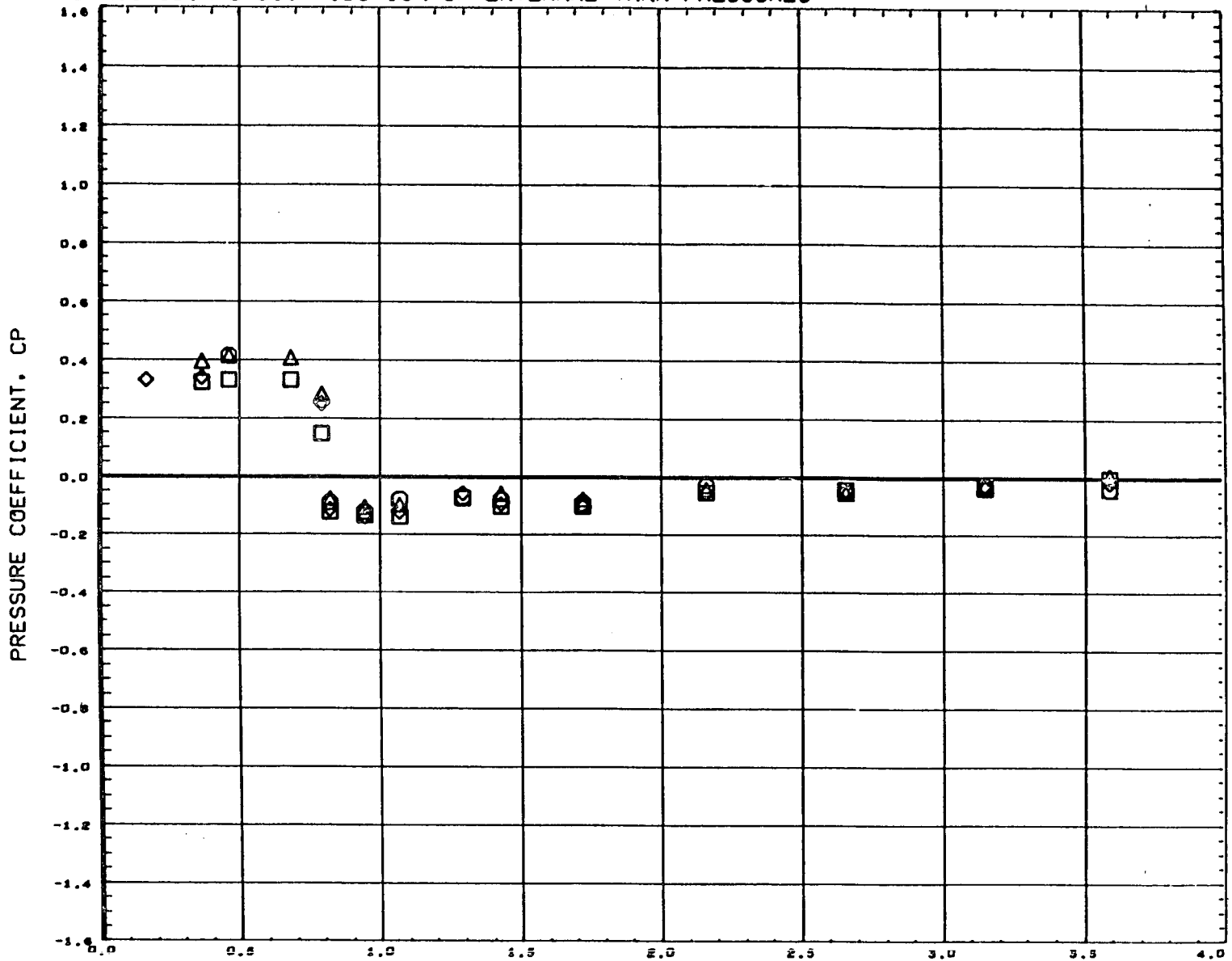
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
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△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

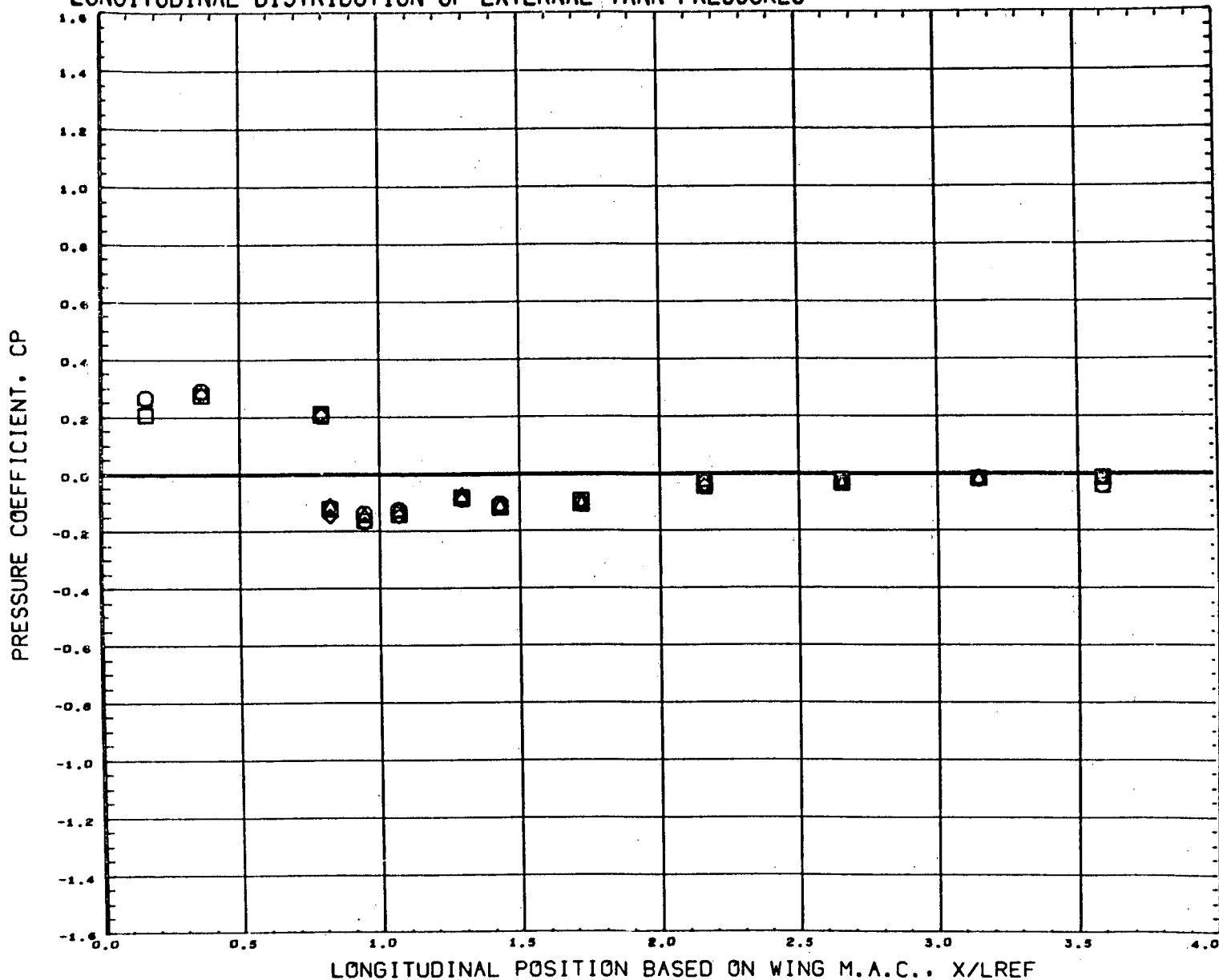
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	- 4.000	1.960		
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126,000	- 4,000	1.960		
△	144,000				
◇	162,000				
□	180,000				

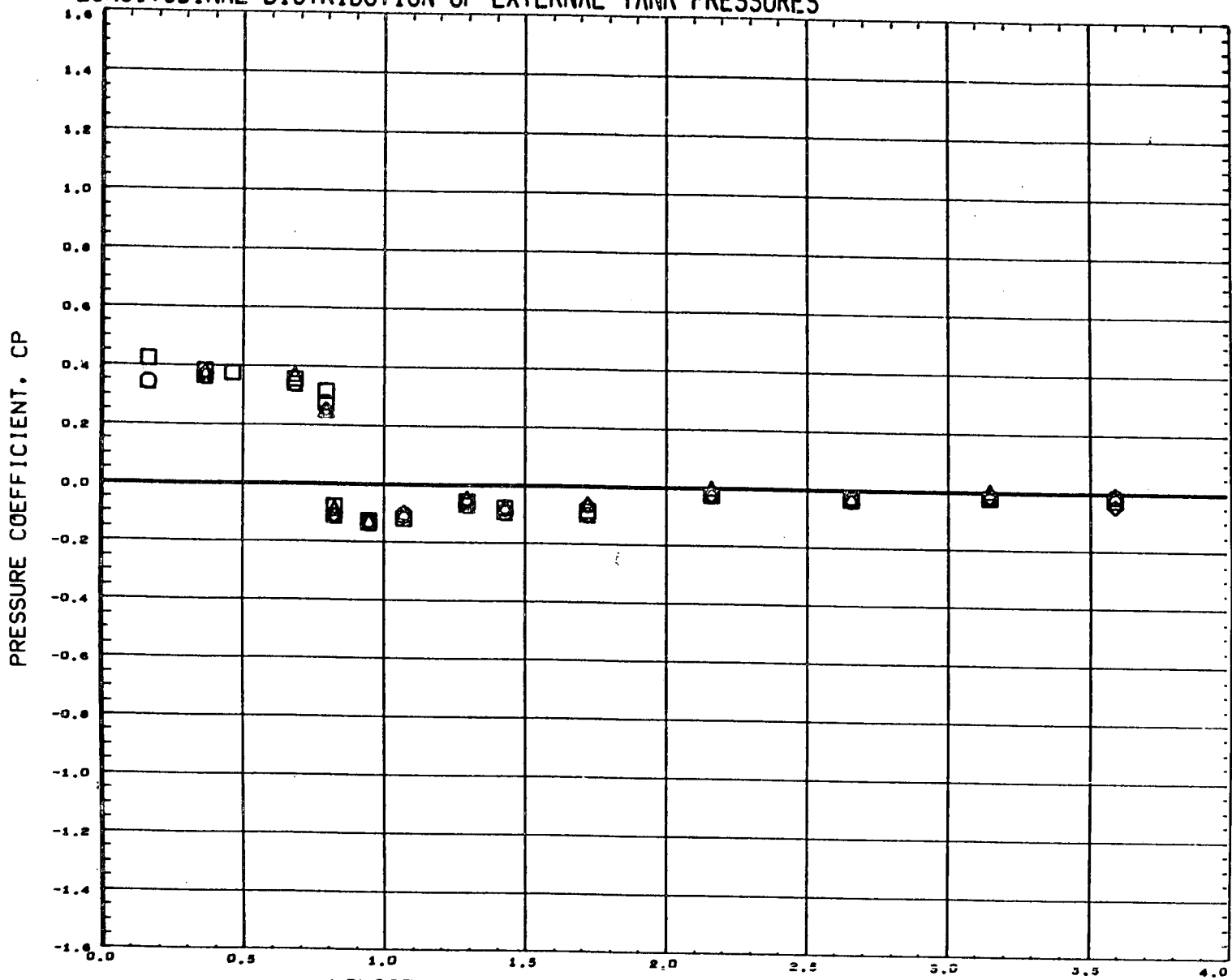
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MSFC 543-EXTERNAL TANK ALONE. T1

(R70000)

PAGE 51

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	0.000	1.960		
△	15.000				
◇	30.000				
□	45.000				

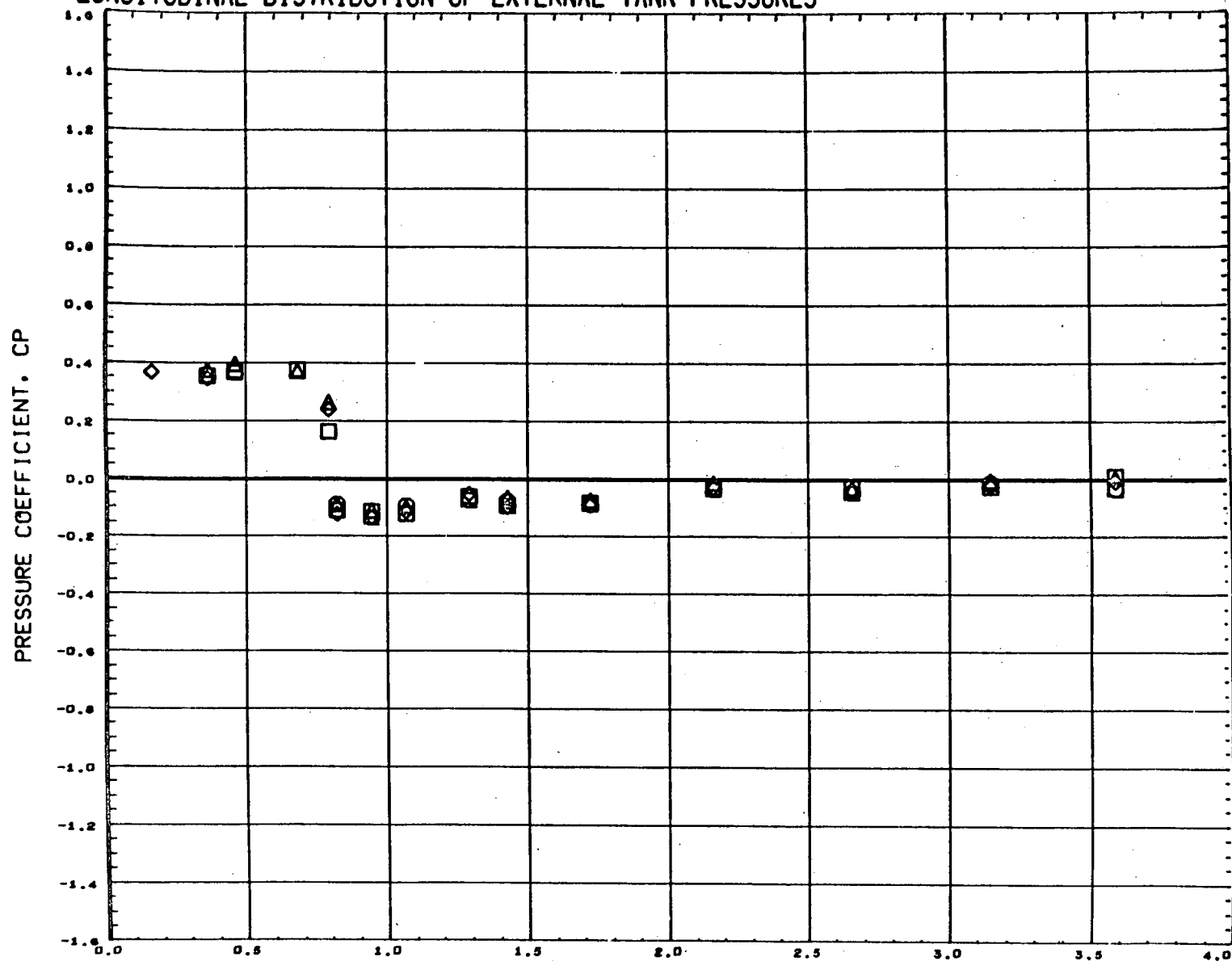
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 52

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	0.000	1.960		0.000
△	75.000				
◇	90.000				
□	100.000				

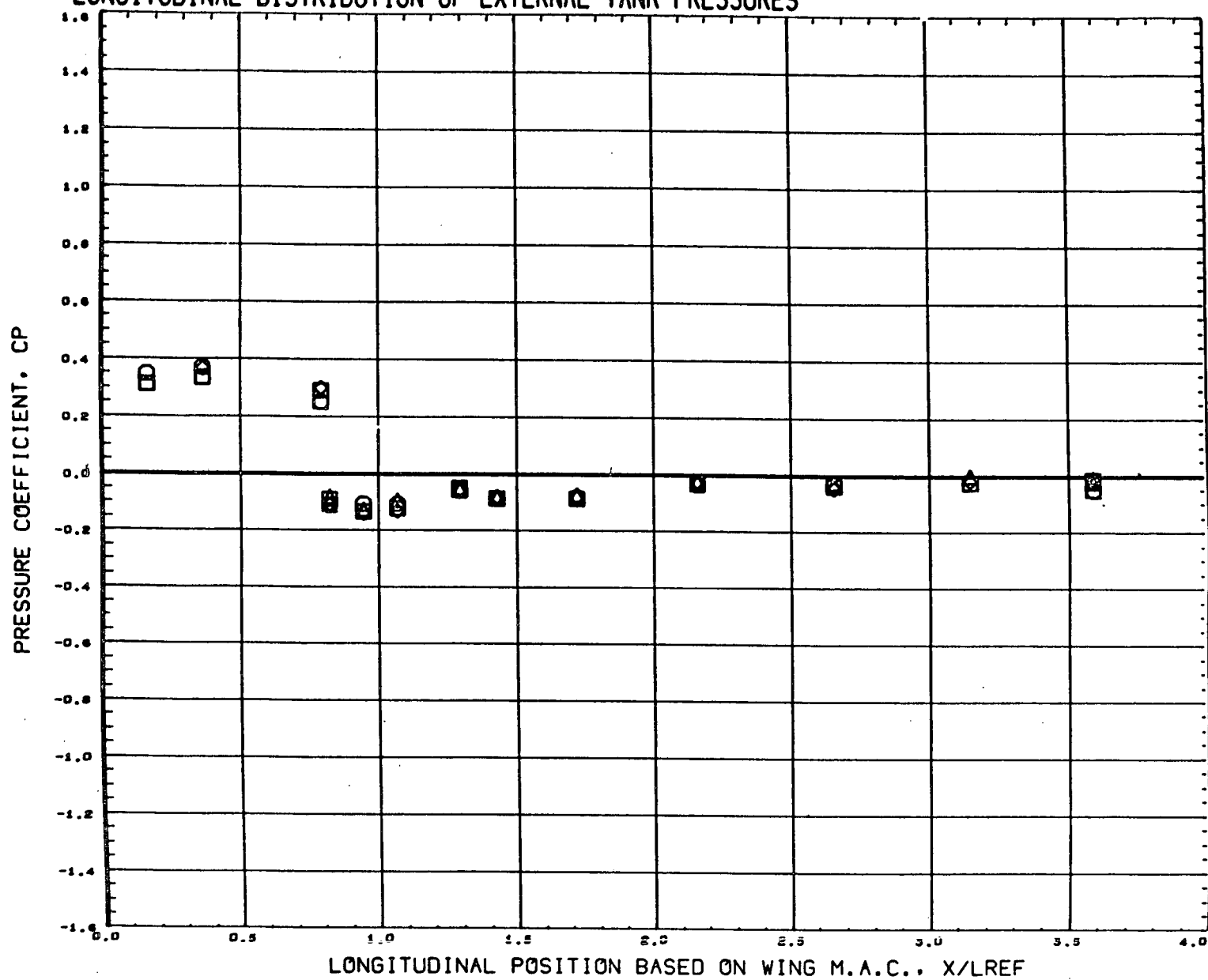
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 53

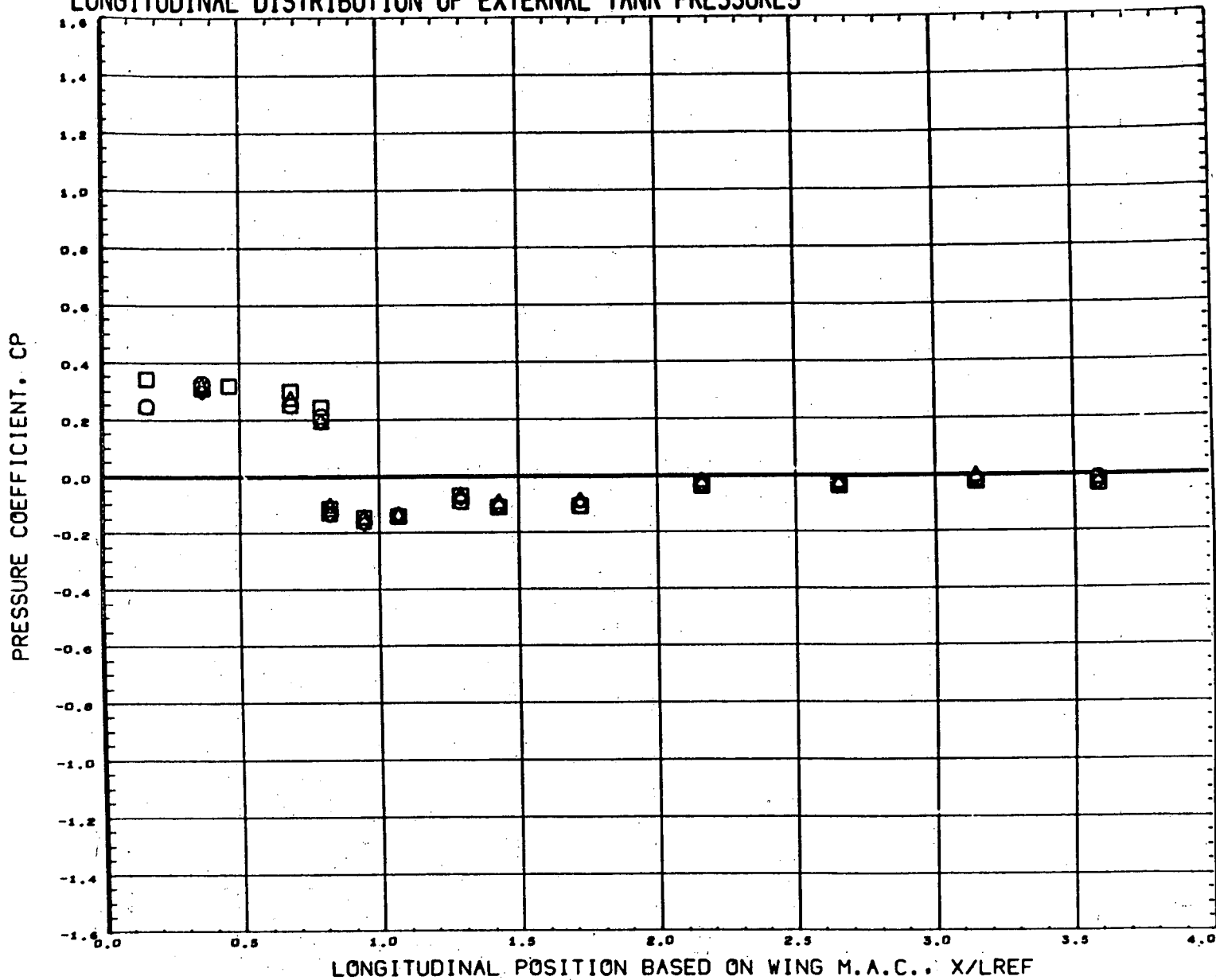
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	0.000	1.960		
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	4.000	1.960		
△	15.000				
◇	30.000				
□	45.000				

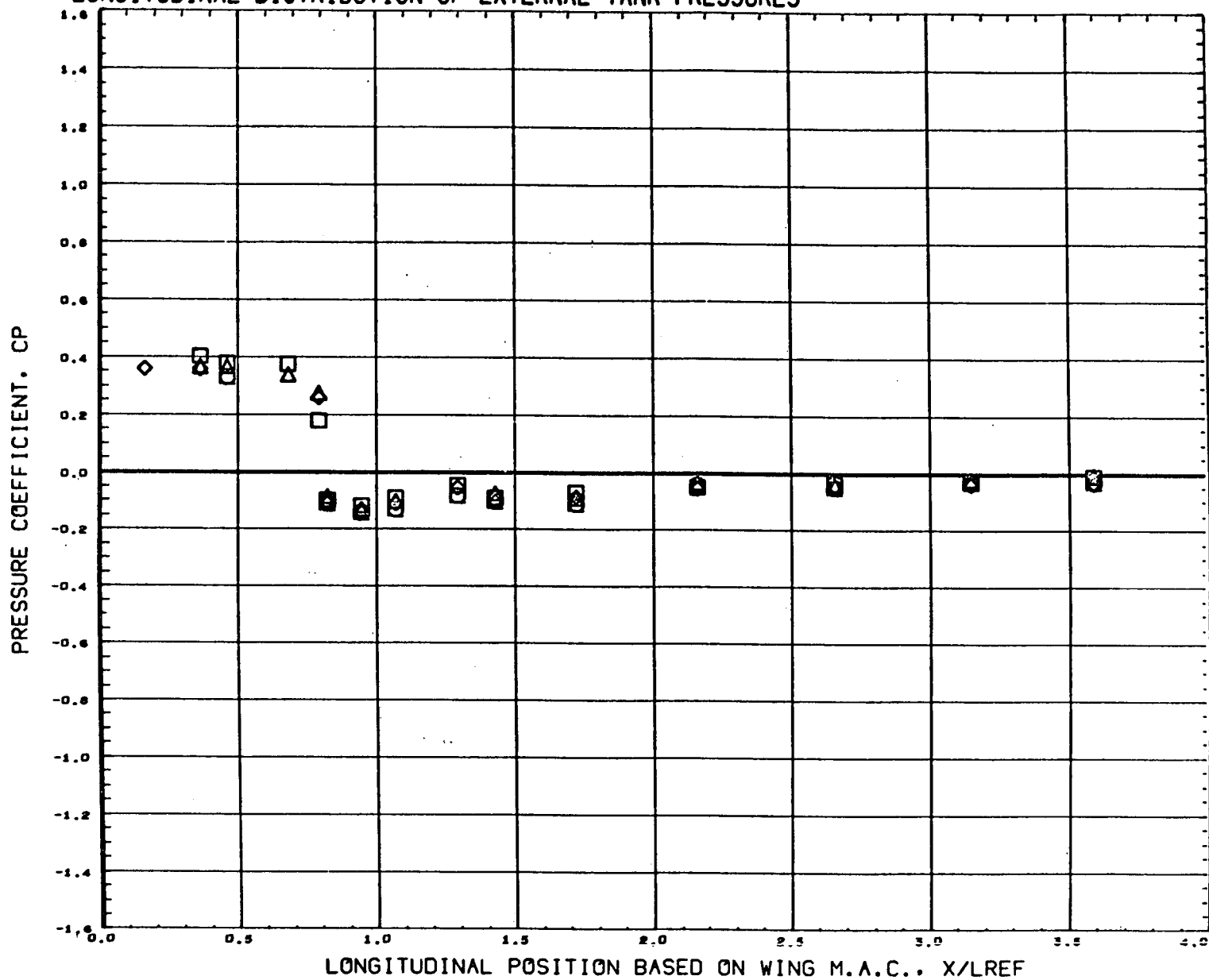
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 55

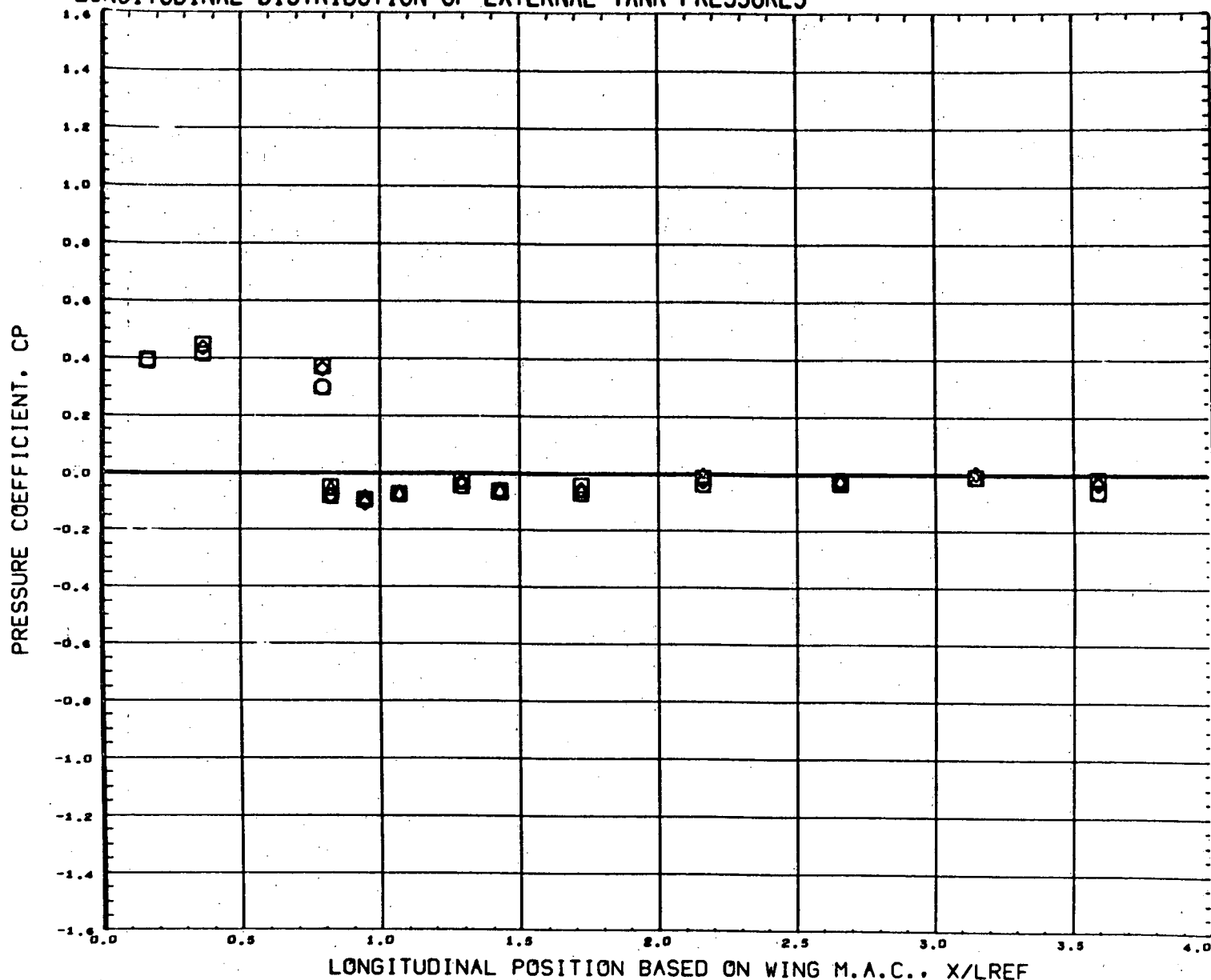
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60,000	4,000	1.960		
△	75,000				
◇	90,000				
□	100,000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	4.000	1.960		
◇	144.000				
□	162.000				
⊠	180.000				

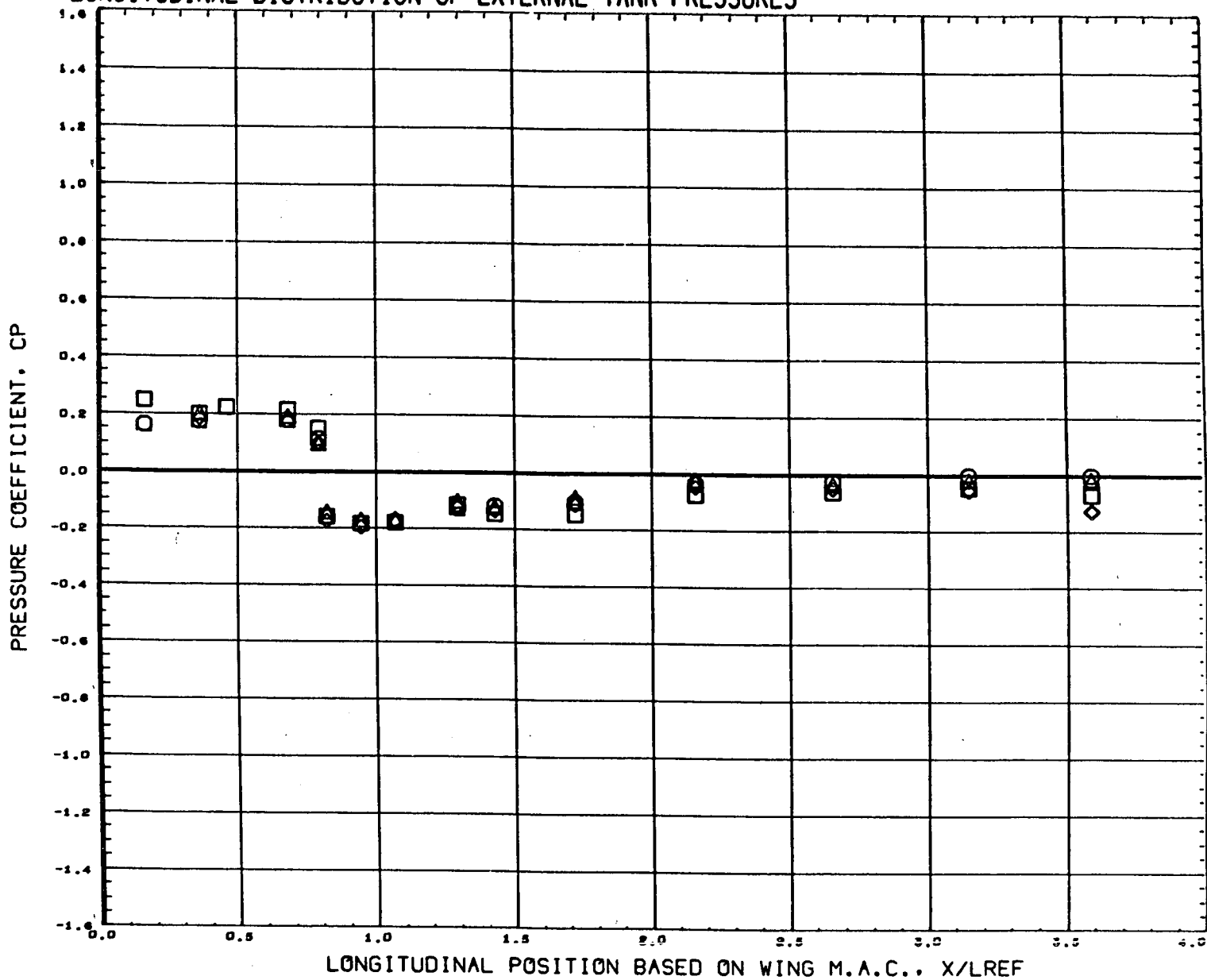
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 57

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	1.960		
△	15.000				
◇	30.000				
□	45.000				

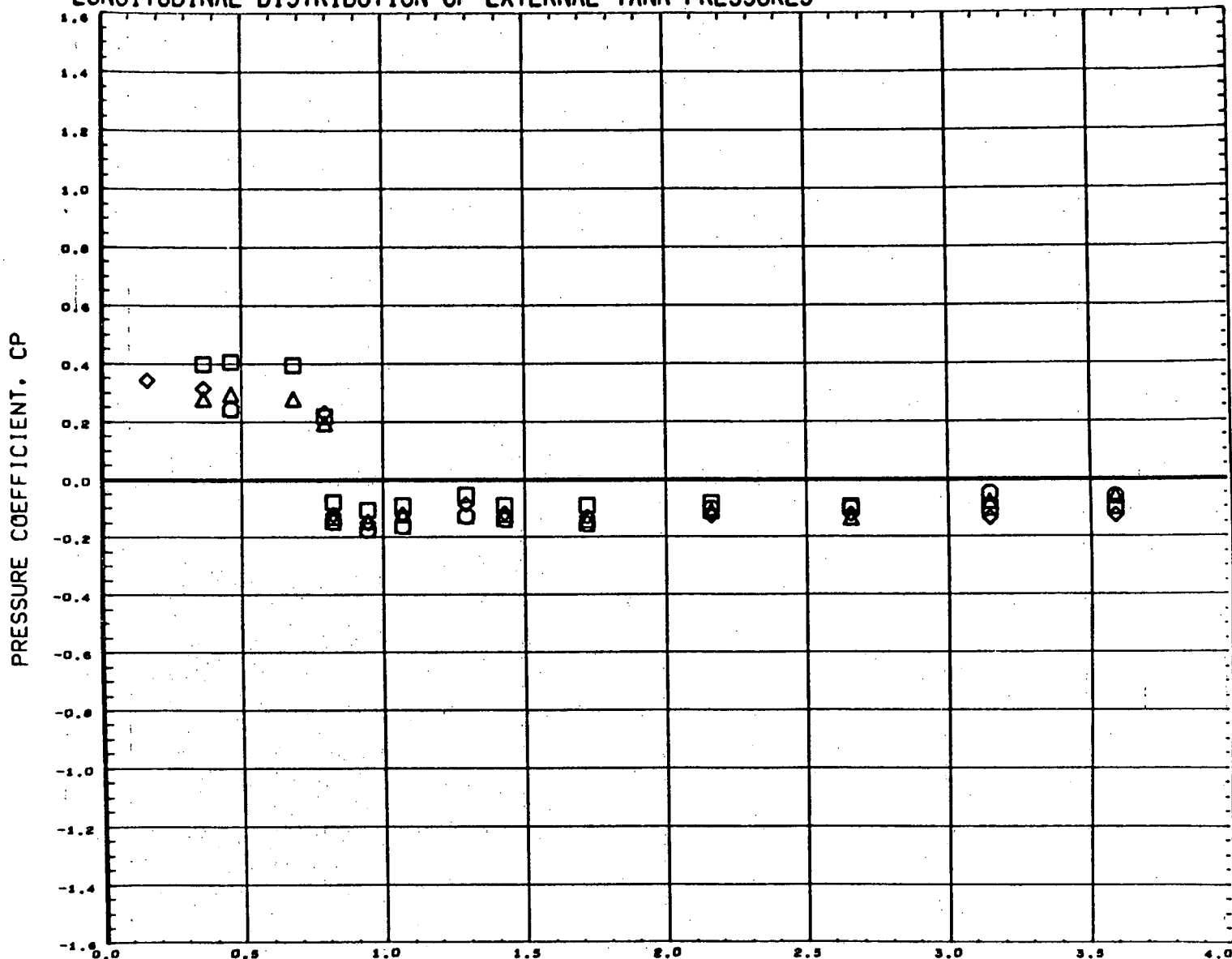
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MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 58

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60,000	10,000	1.960		
△	75,000				
◇	90,000				
□	100,000				

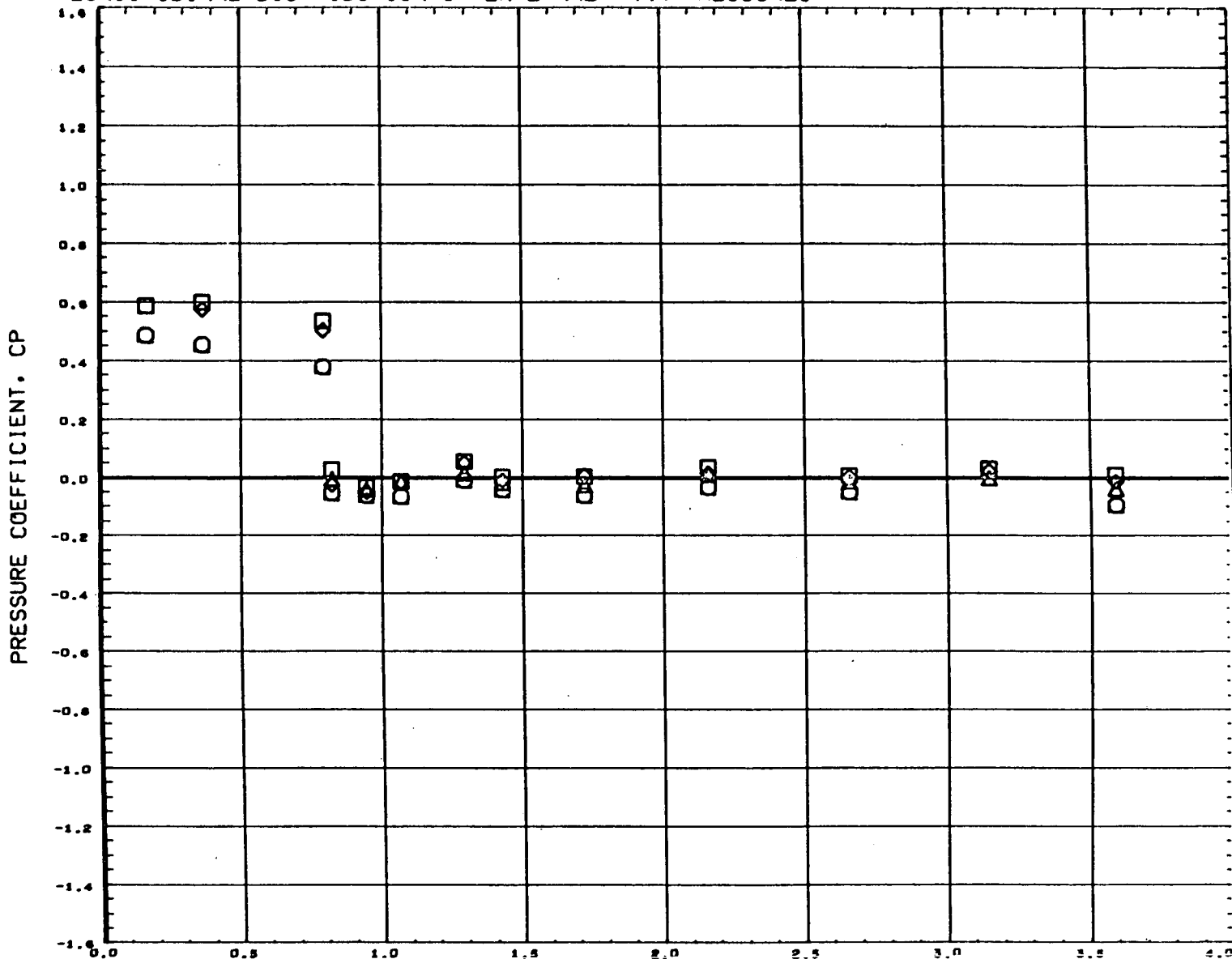
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MSFC 543-EXTERNAL TANK ALONE. T1

(R70000)

PAGE 59

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

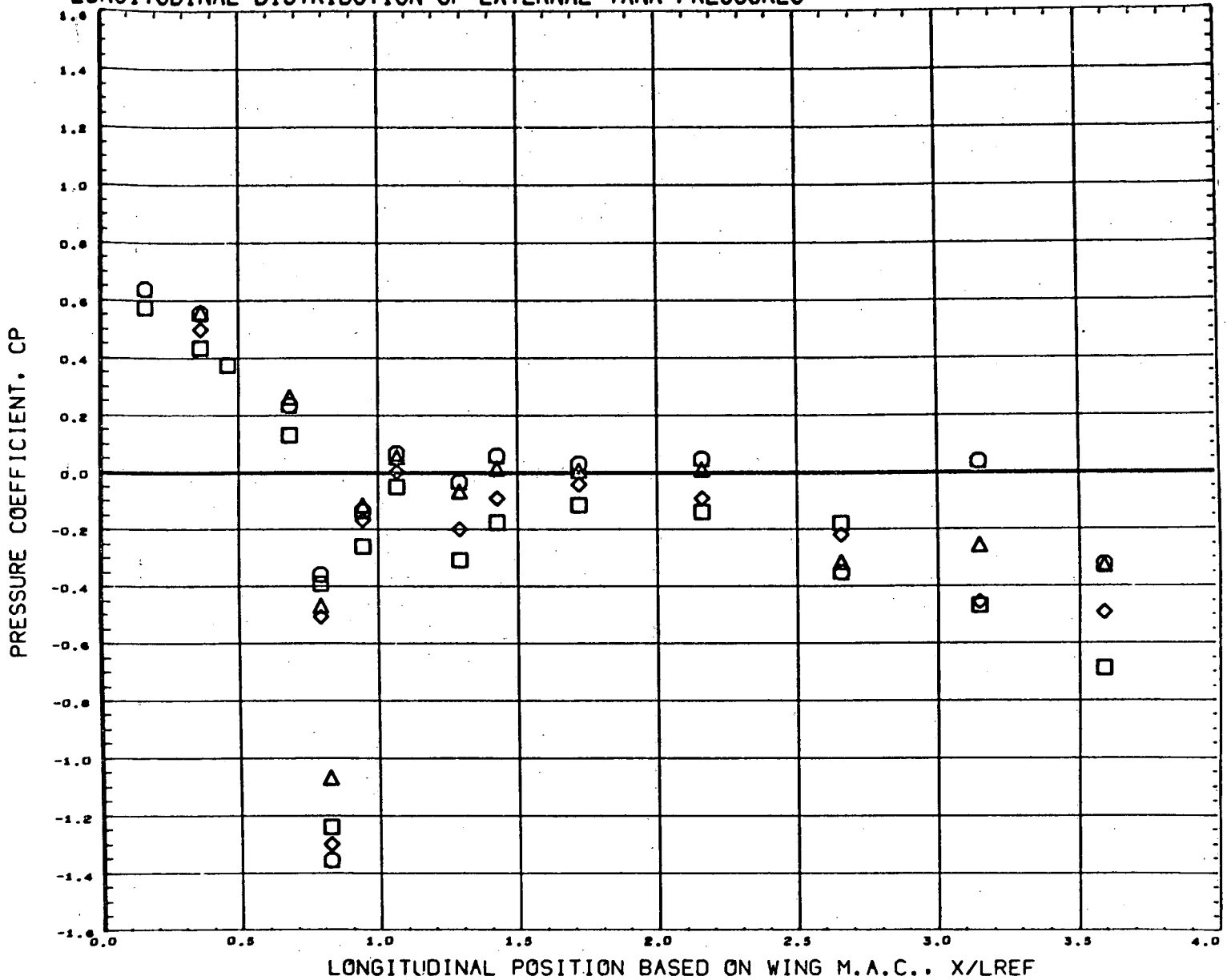


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	10.000	1.960		
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	0.800	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

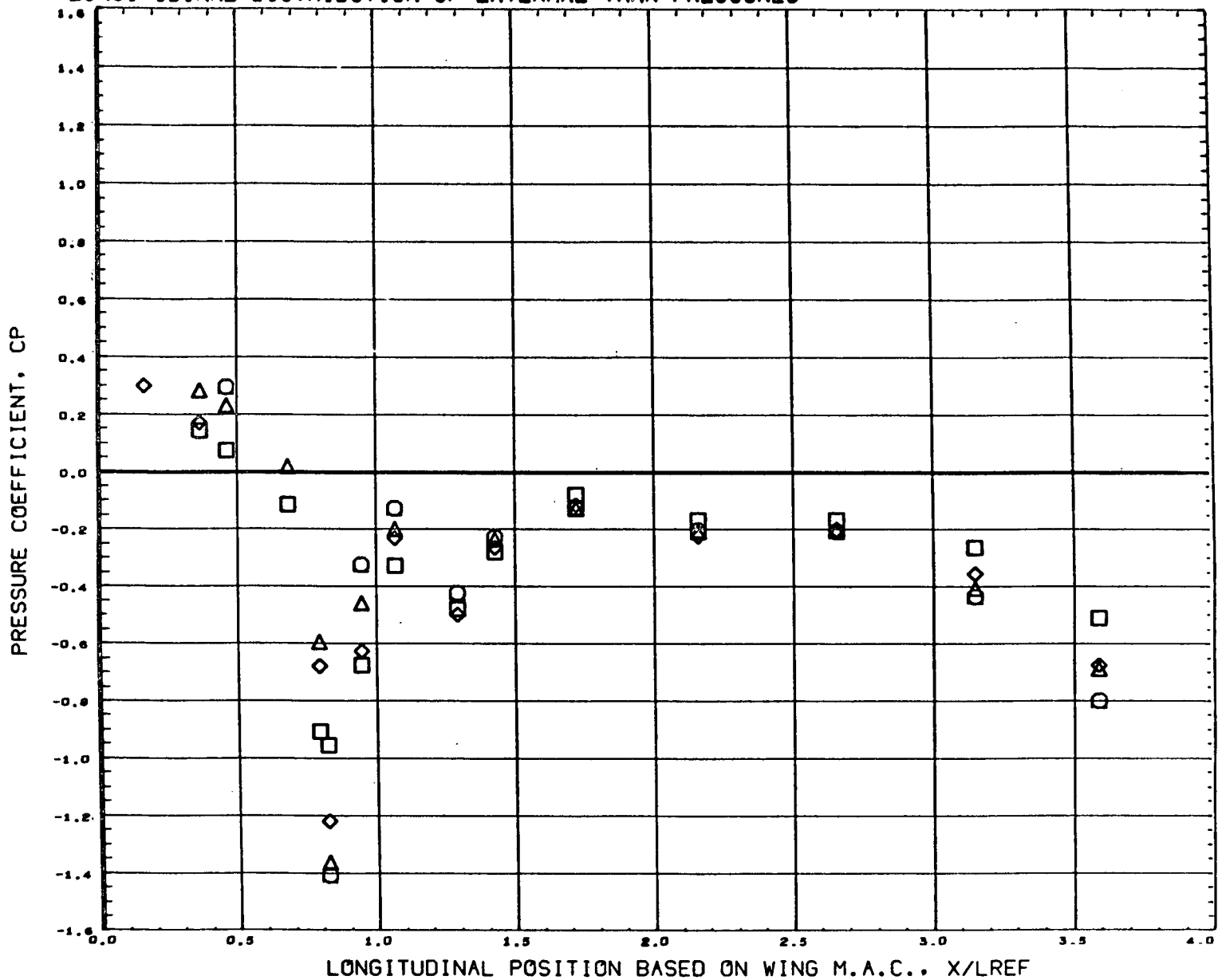
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MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 61

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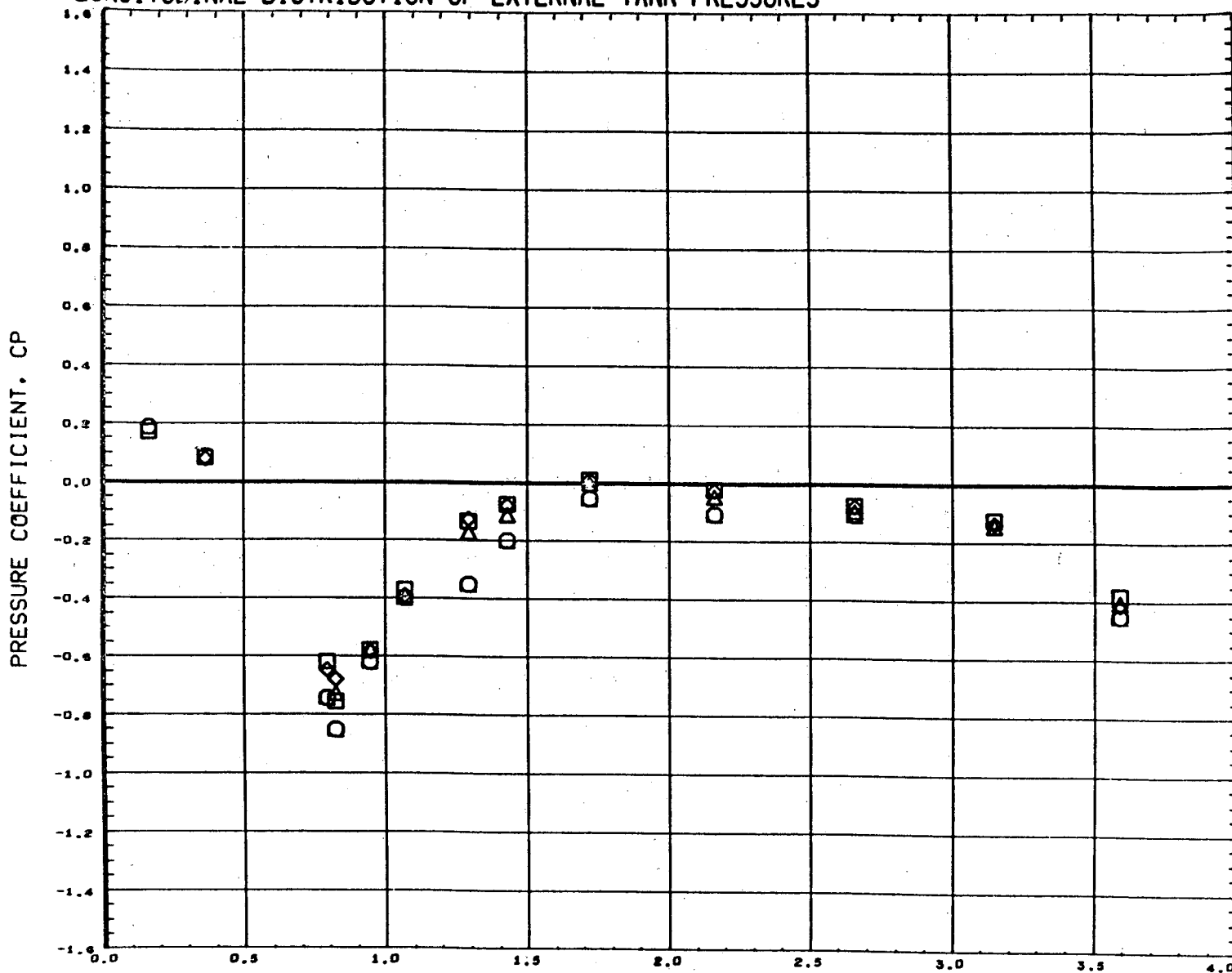
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	- 10.000	0.800	BETA	0.000 ORBINC - 1.500
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

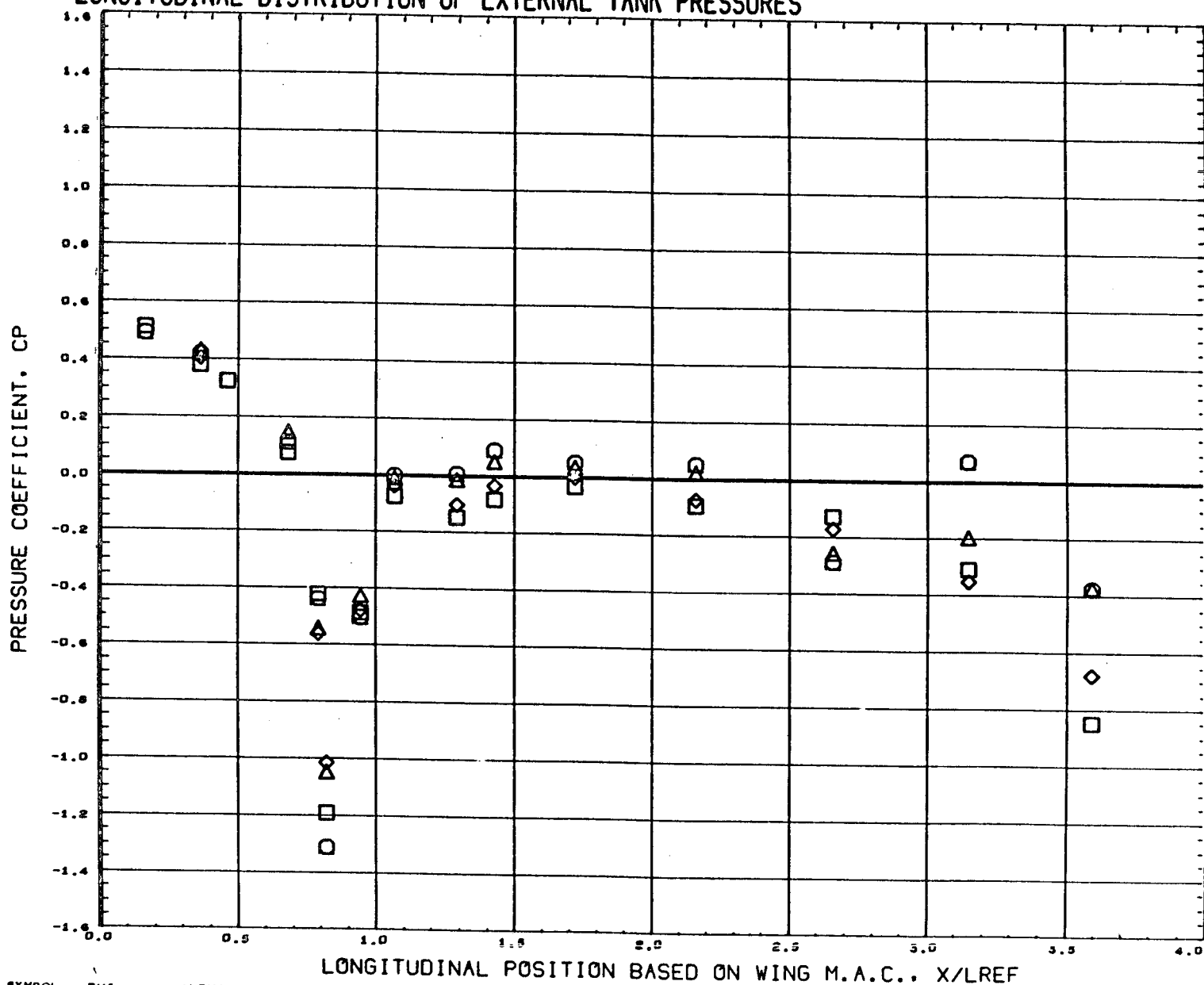
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126,000	- 10,000	0,800		0,000 ORBINC - 1,500
△	144,000				
◇	162,000				
□	180,000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



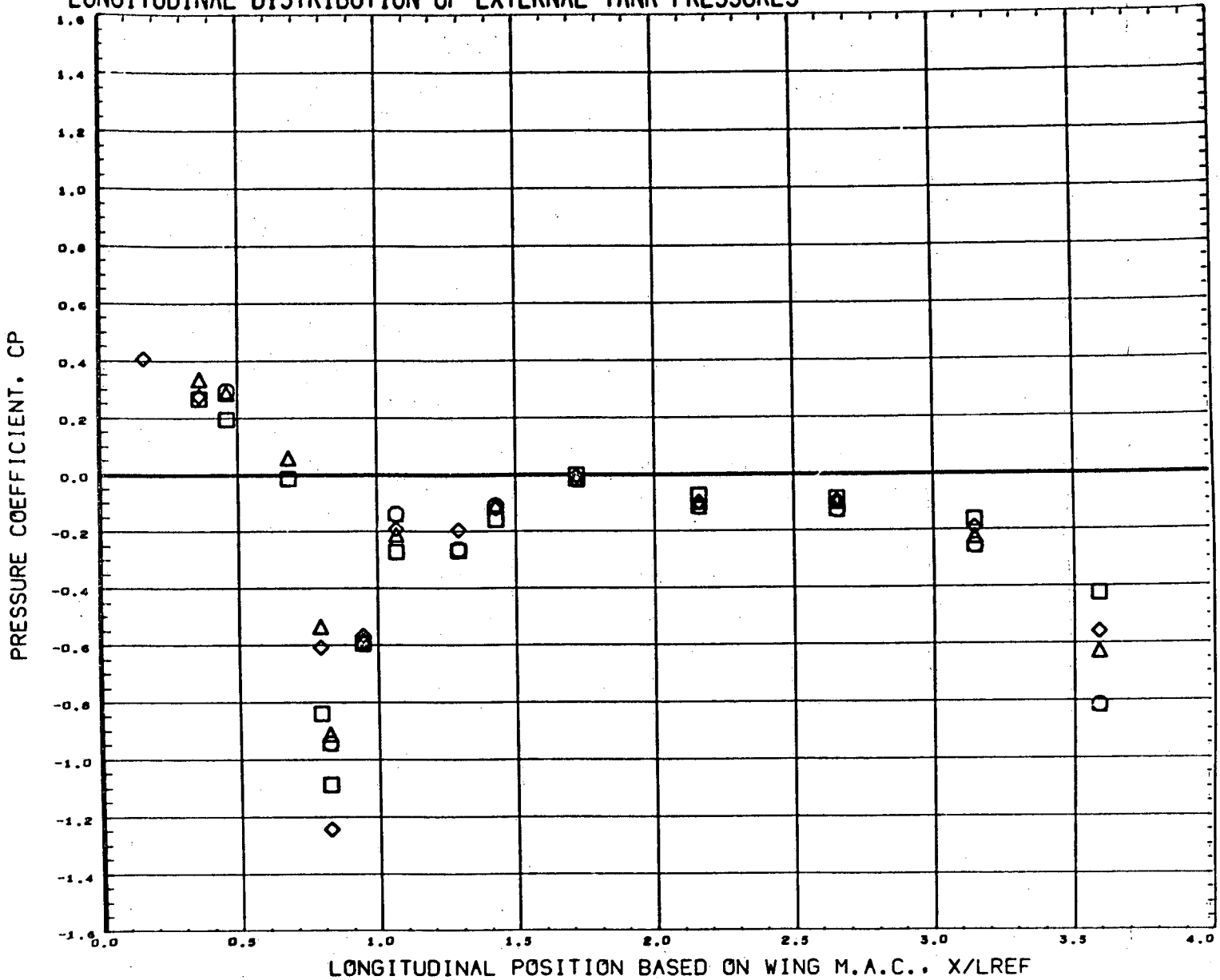
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 4.000	0.800		0.000 ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 64

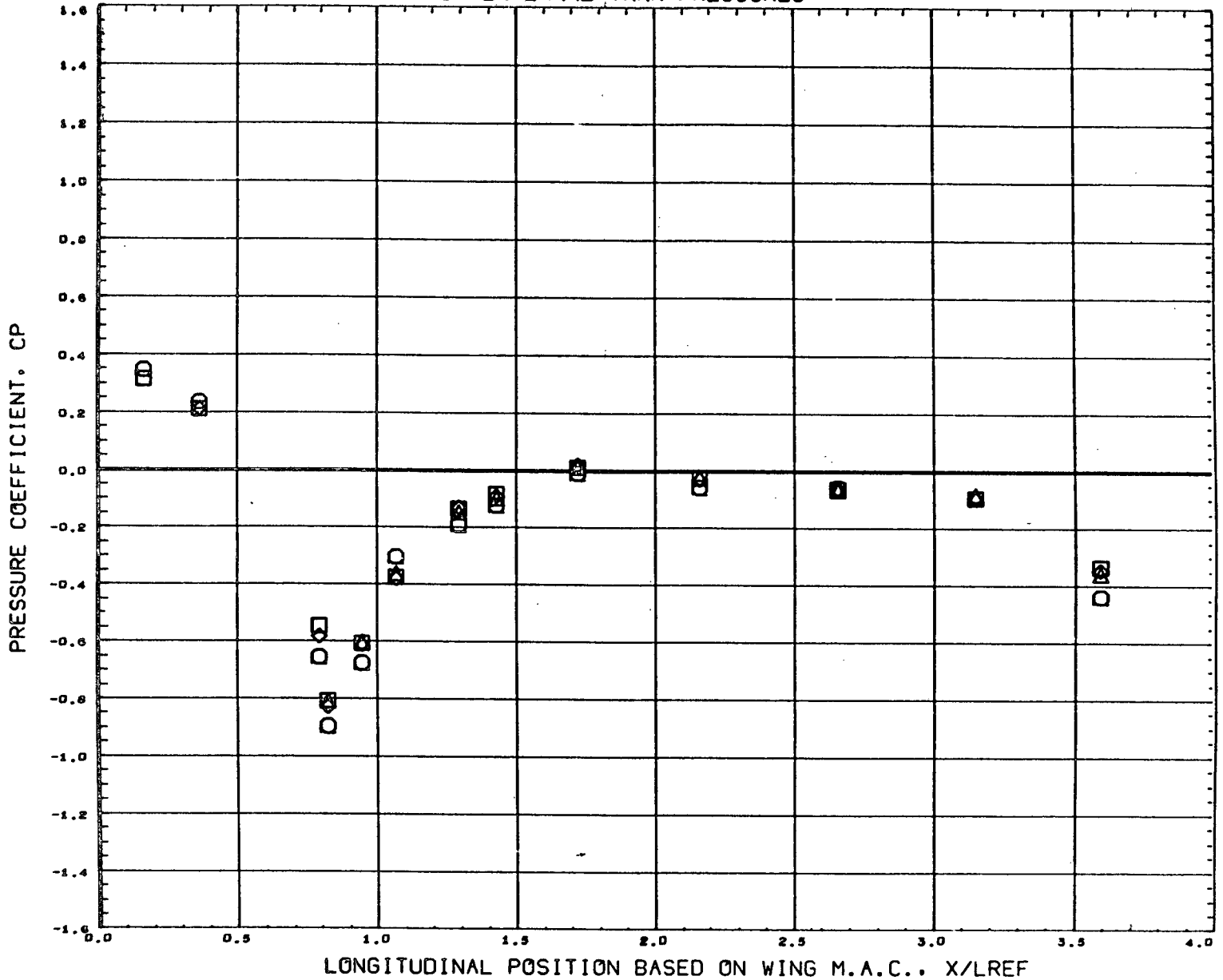
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	- 4.000	0.800		0.000 ORBINC - 1.500
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◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



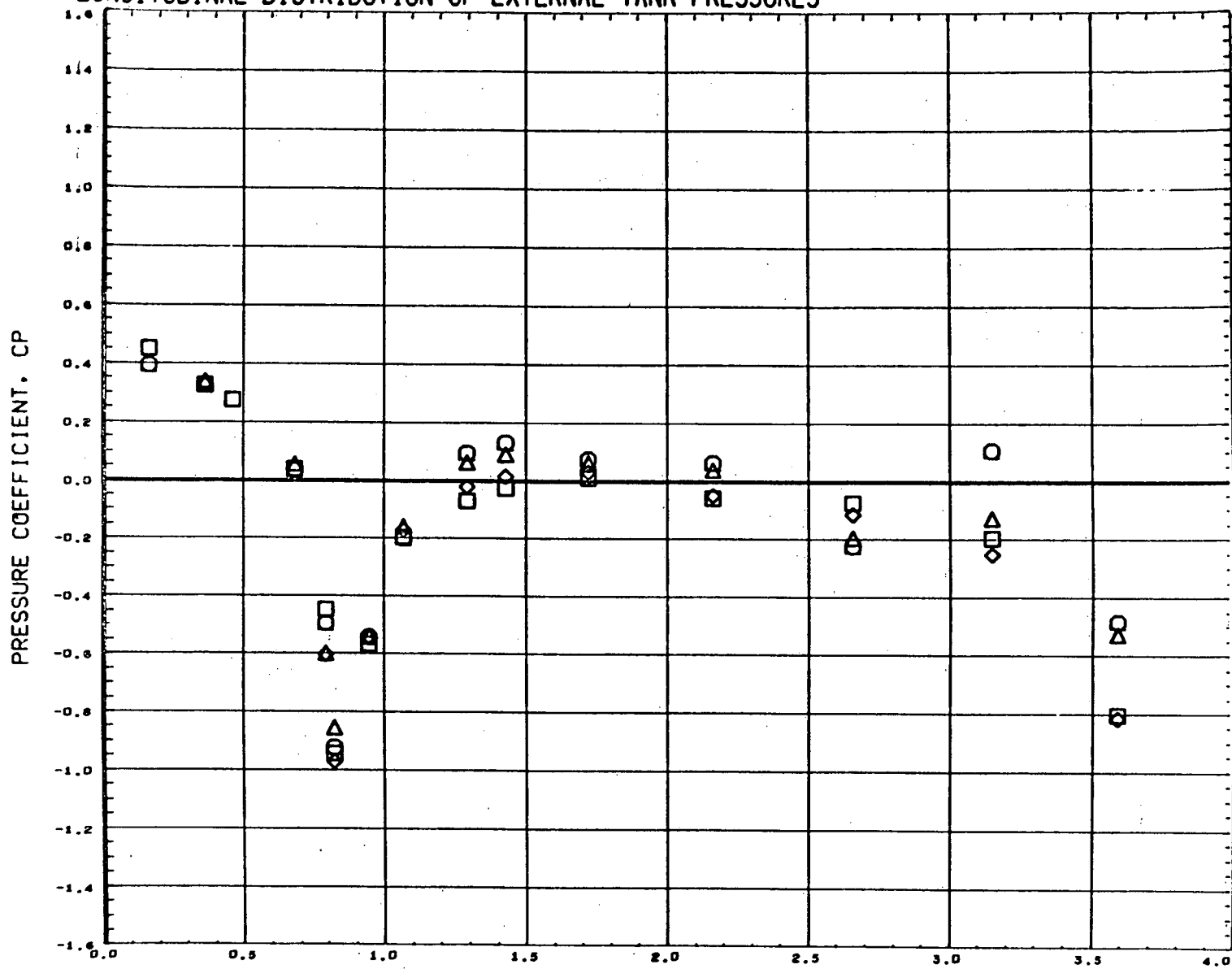
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
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△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 66

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

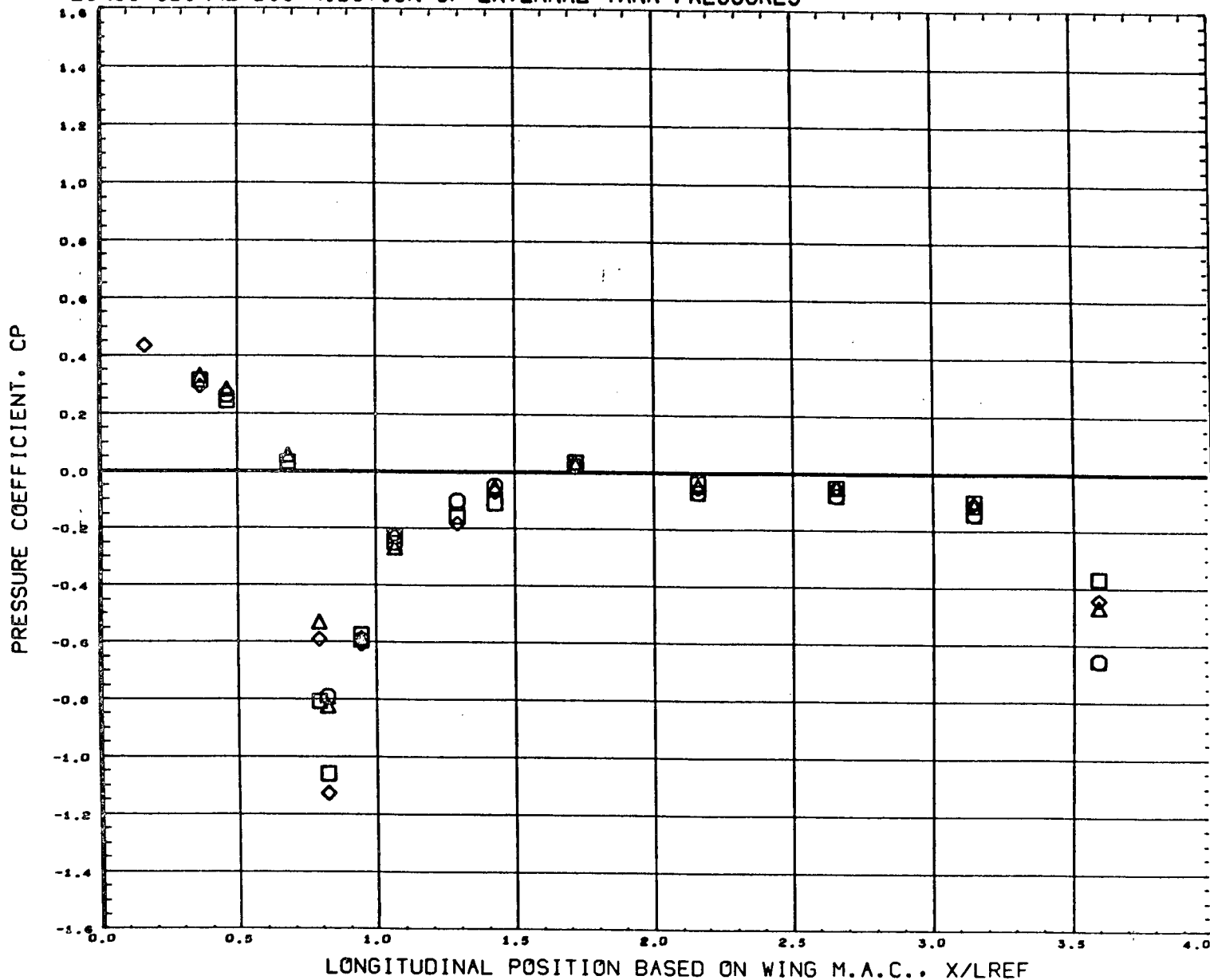


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	0.800	BETA	0.000	ORBINC - 1.500
△	15.000					
◇	30.000					
□	45.000					

REFERENCE FILE

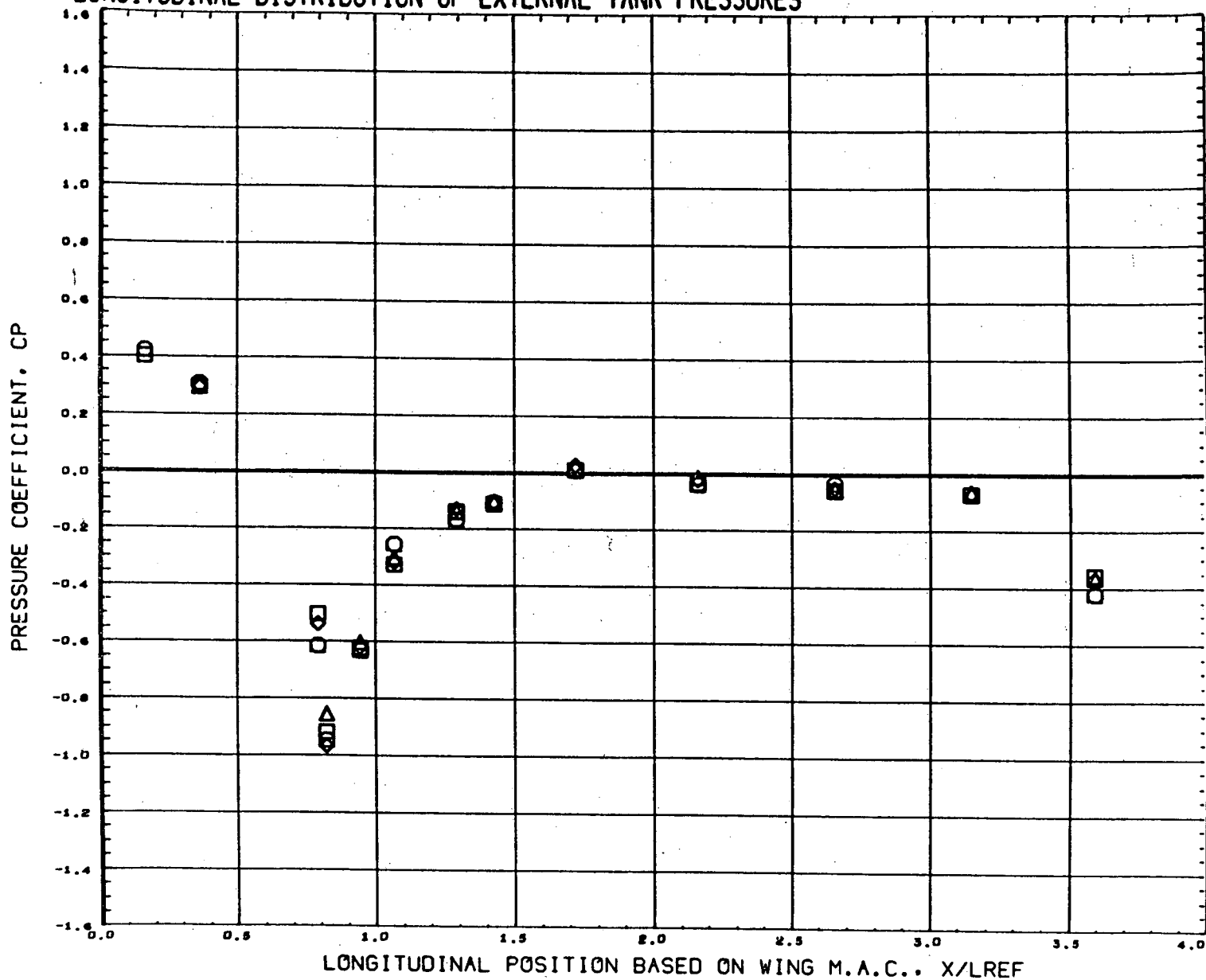
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	0.000	0.800	BETA	0.000 ORBINC - 1.500
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



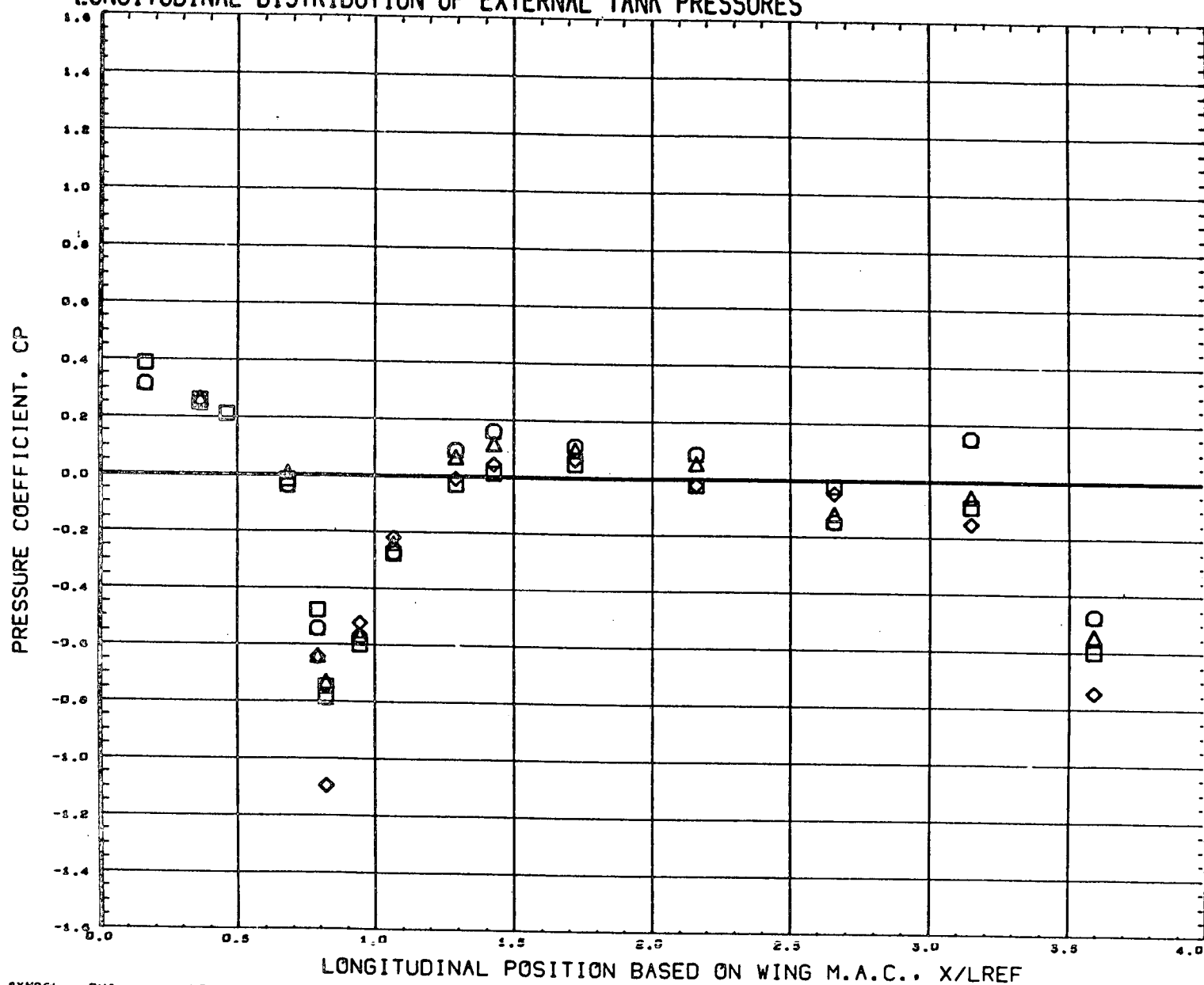
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	0.000	0.800	BETA	0.000 ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 69

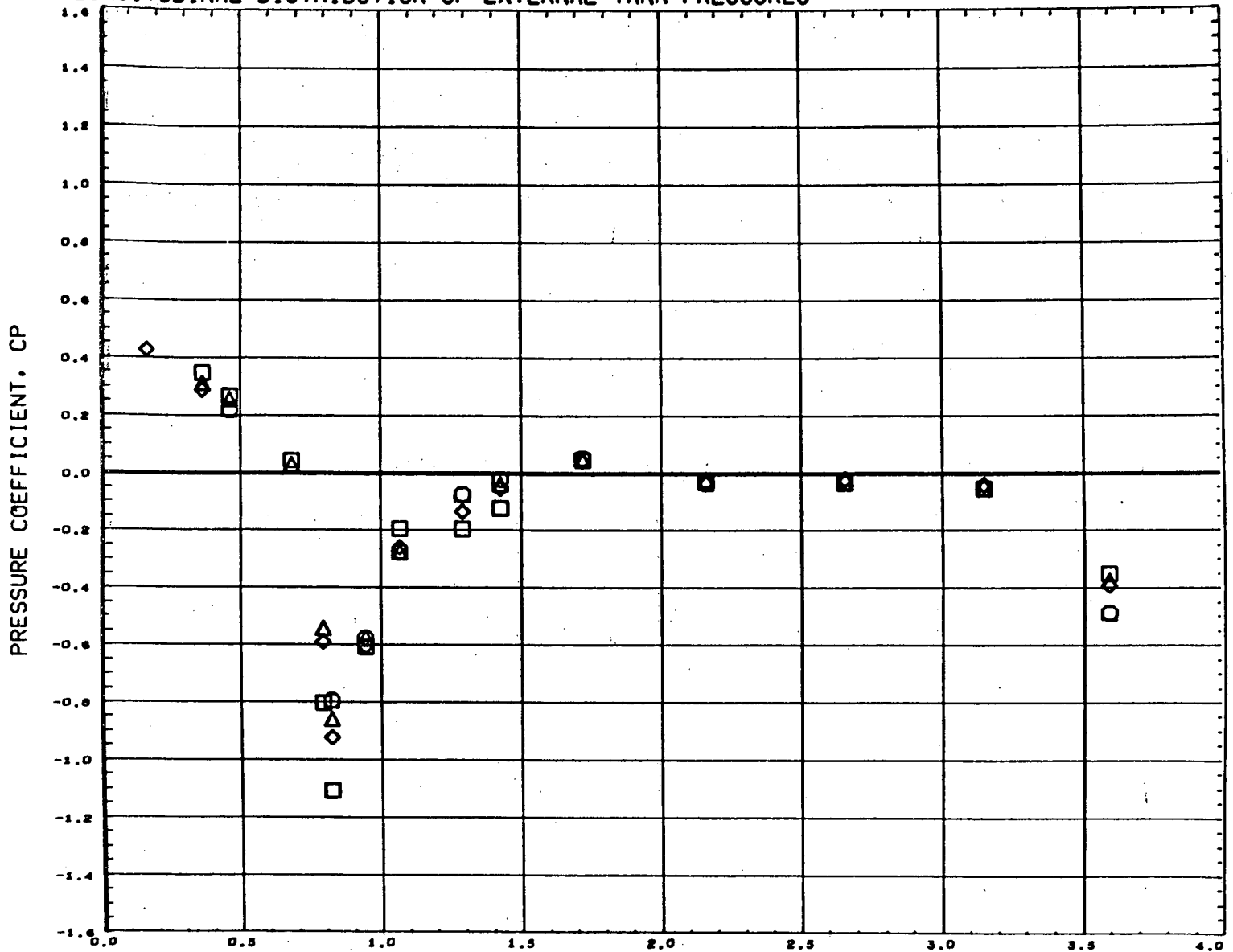
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	4.000	0.800	0.000	ORBINC - 1.500
△	13.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



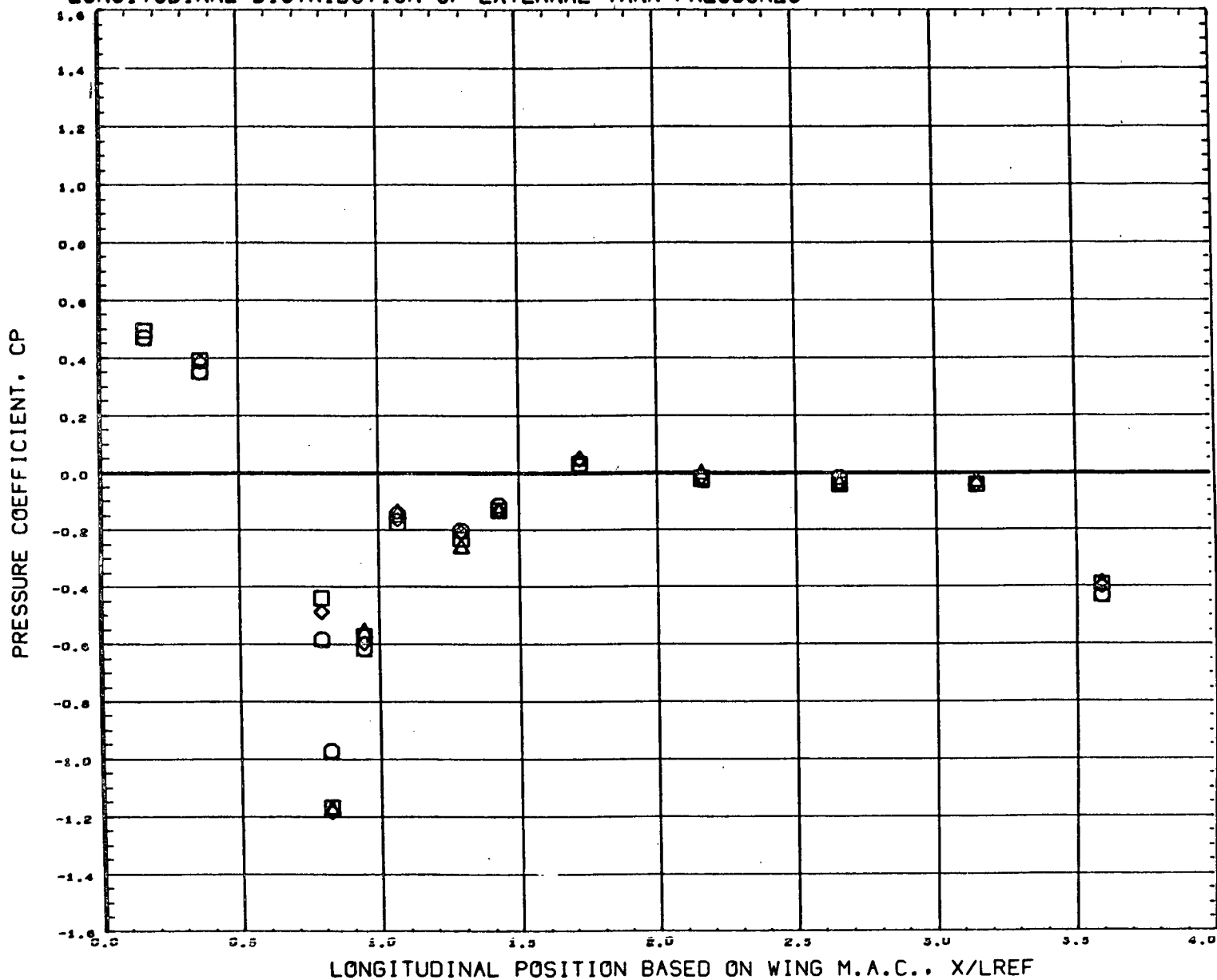
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	4.000	0.800	0.000	ORBINC - 1.500
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 71

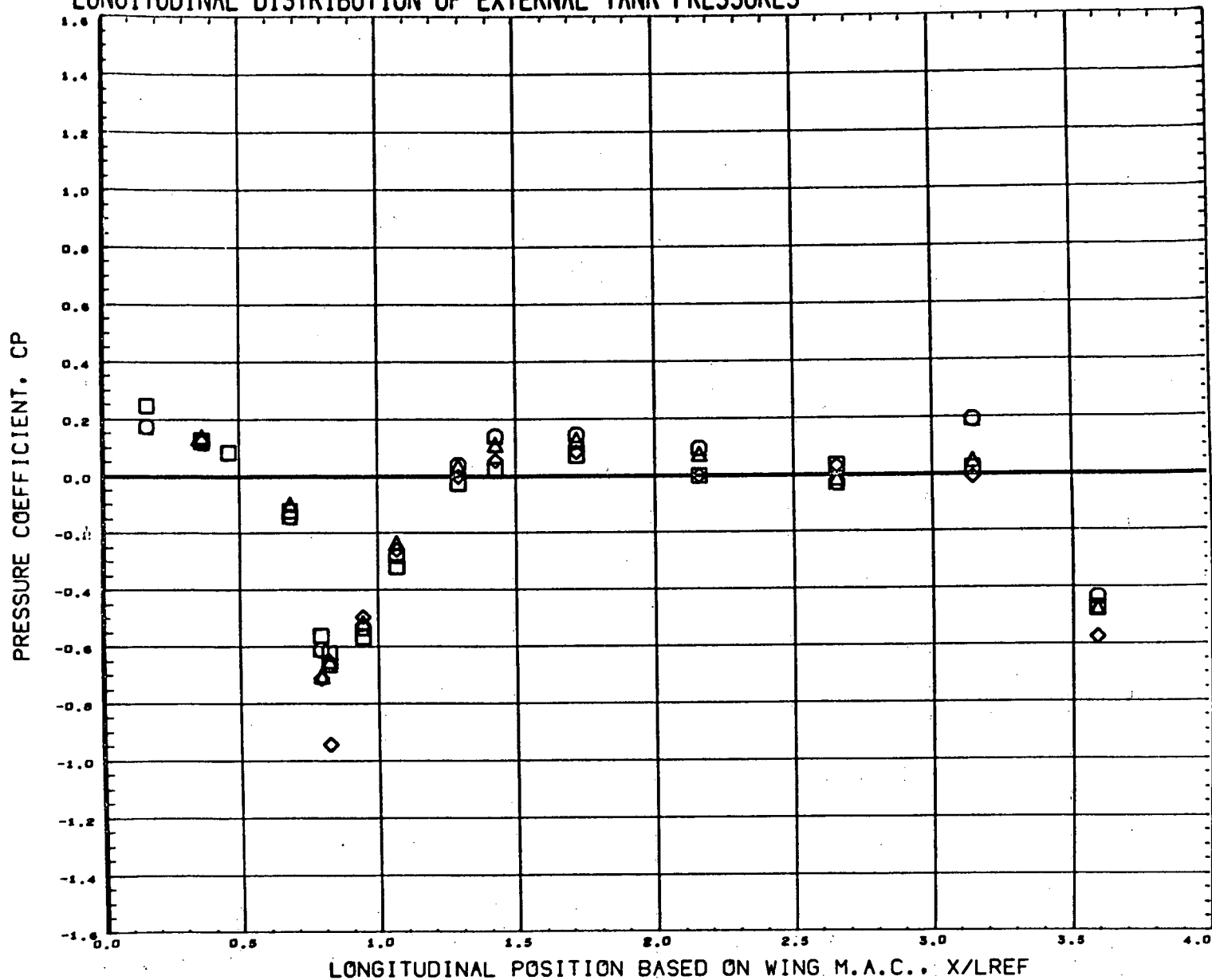
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	4.000	0.800	0.000	ORBINC - 1.500
△	144.000				
◇	162.000				
□	160.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	0.800		0.000 ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

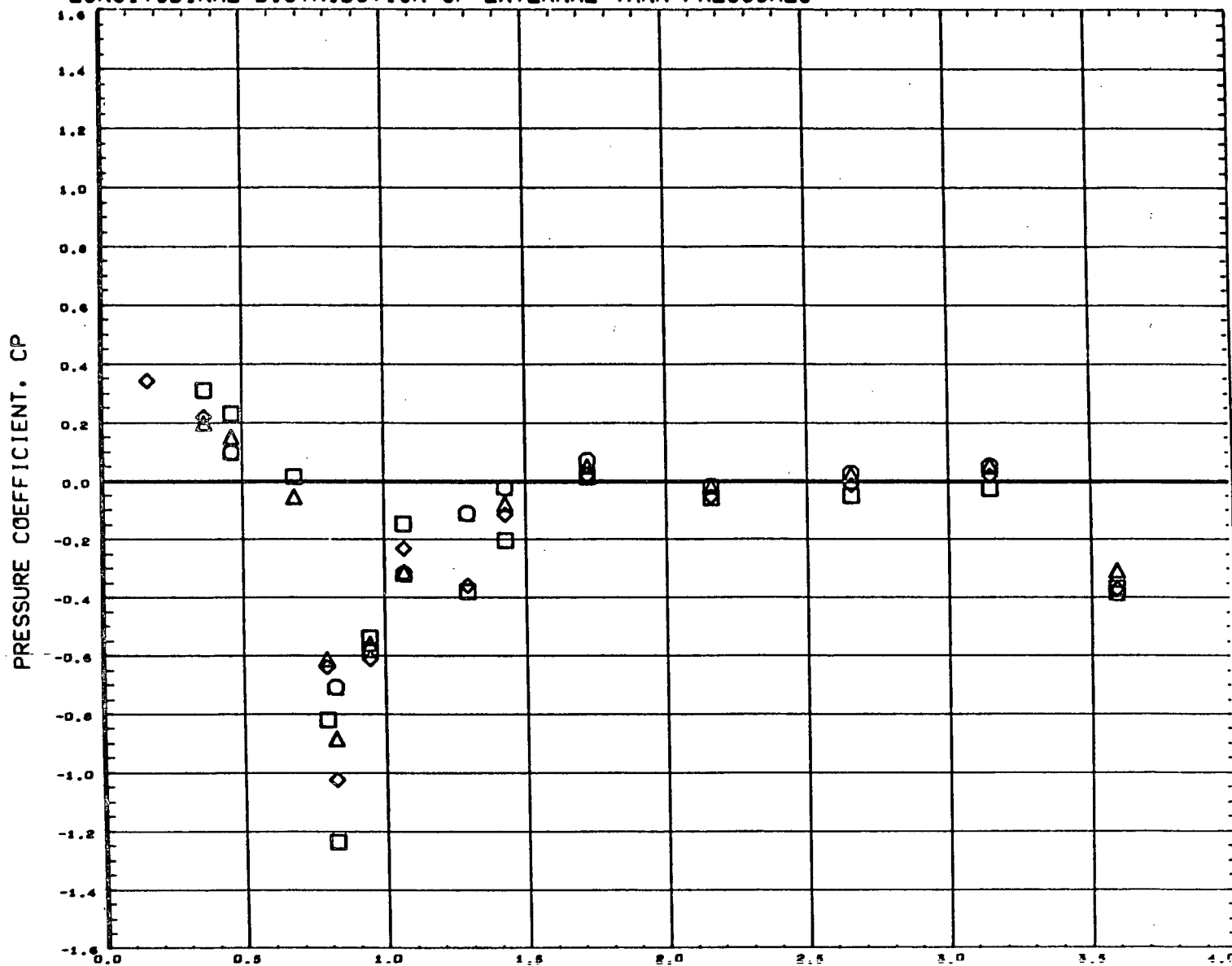
REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(R70600)

PAGE 73

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

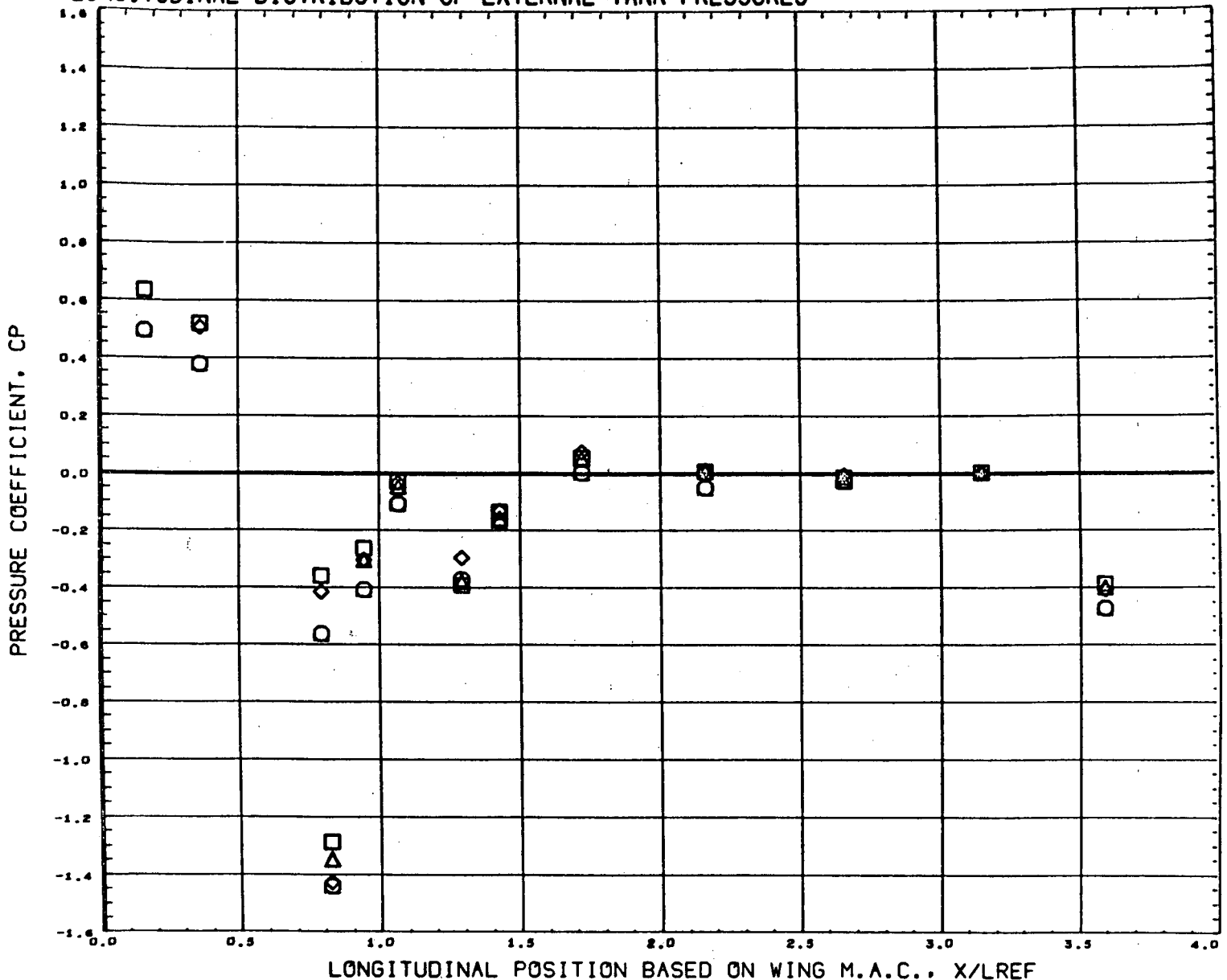


SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60,000	10,000	0.800	BETA	0.000	ORBINC - 1.500
△	75,000					
◇	90,000					
□	100,000					

REFERENCE FILE

B

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



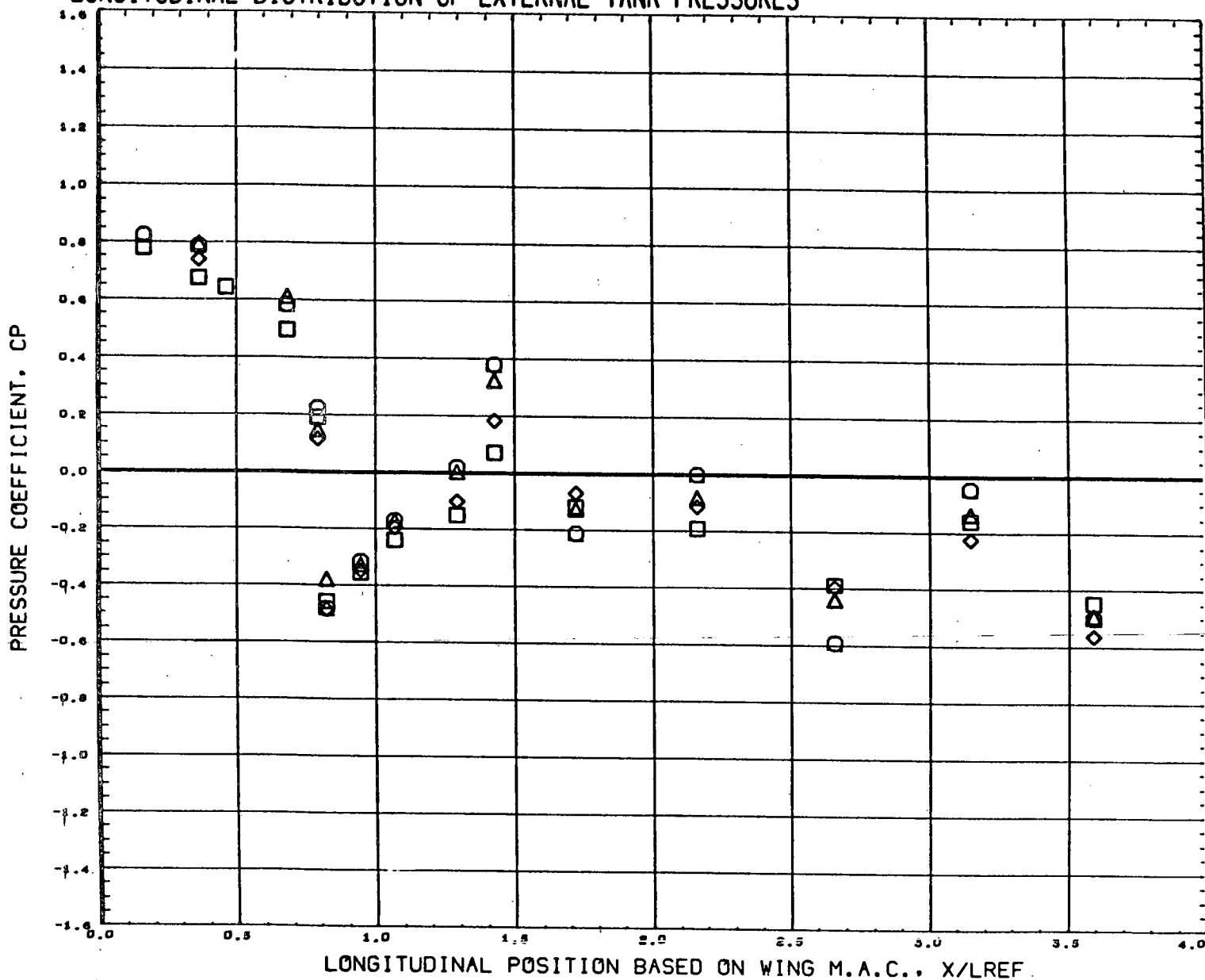
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126,000	10,000	0.800	BETA	0.000	ORBINC - 1.500
△	144,000					
◇	162,000					
□	180,000					

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 75

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

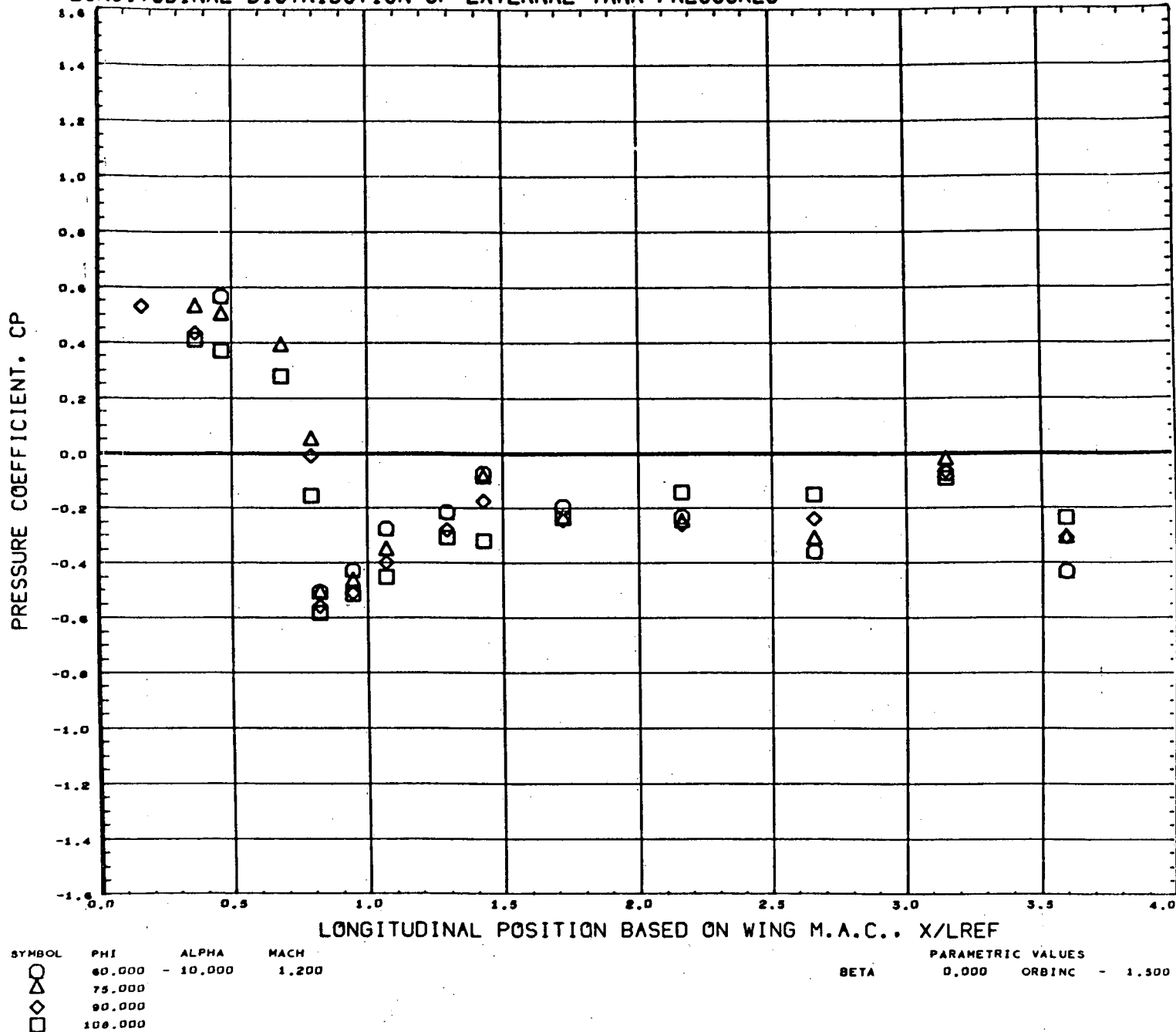


SYMBOL PHI ALPHA MACH
 ○ 0.000 - 10.000 1.200
 △ 15.000
 ◇ 30.000
 □ 45.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500

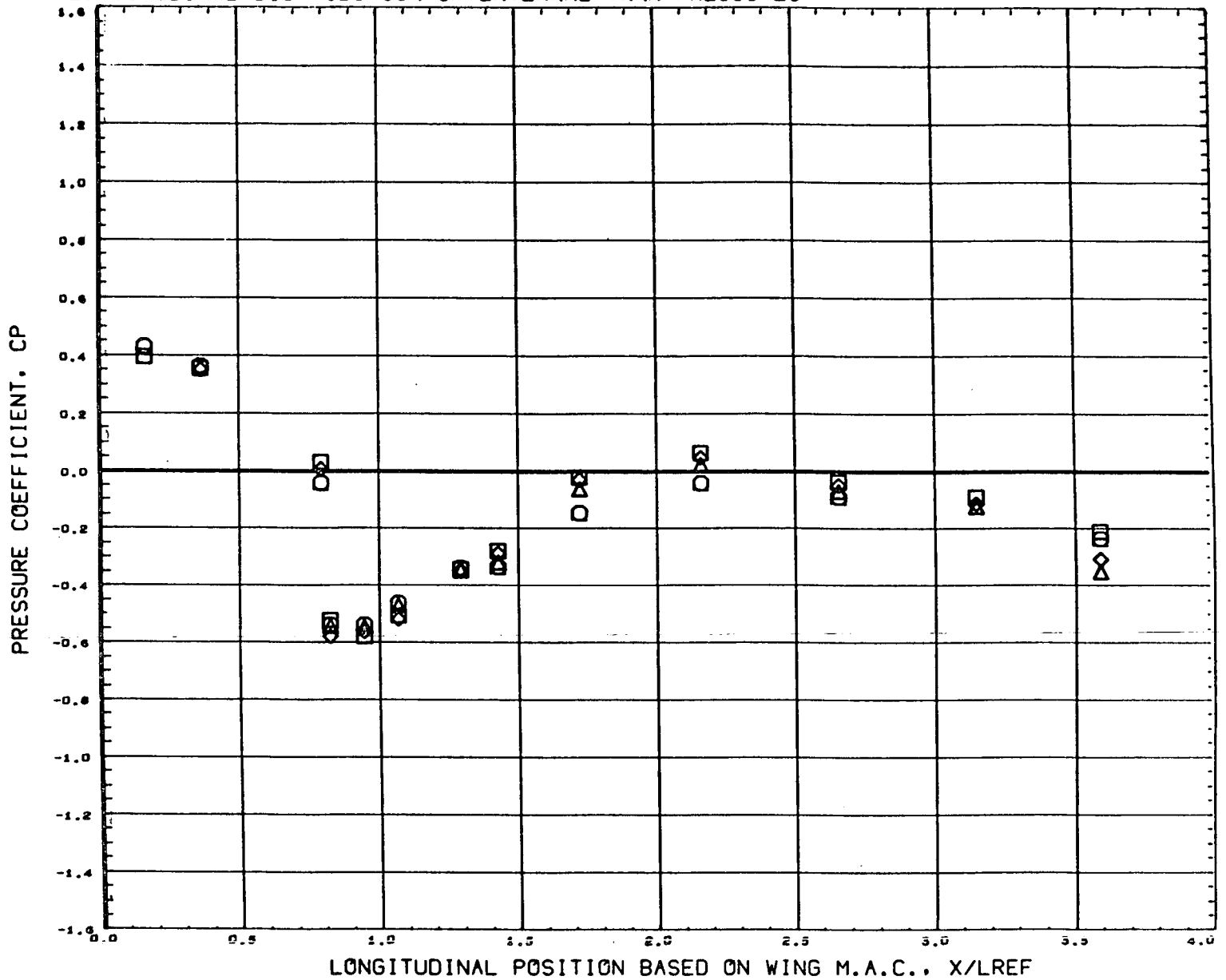
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LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



REFERENCE FILE

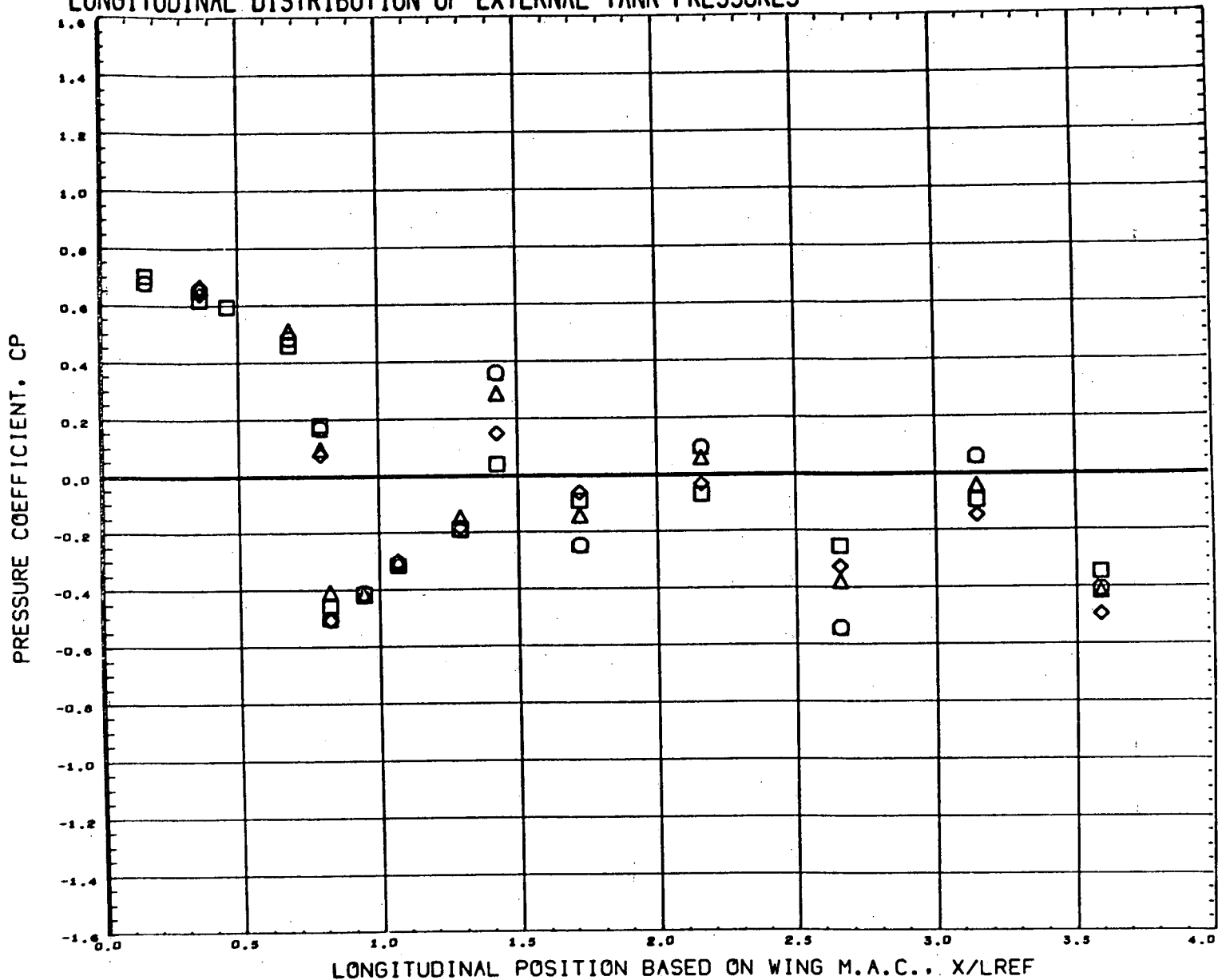
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126,000	- 10,000	1.200	BETA	0.000	ORBINC - 1.500
△	144,000					
◇	162,000					
□	180,000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



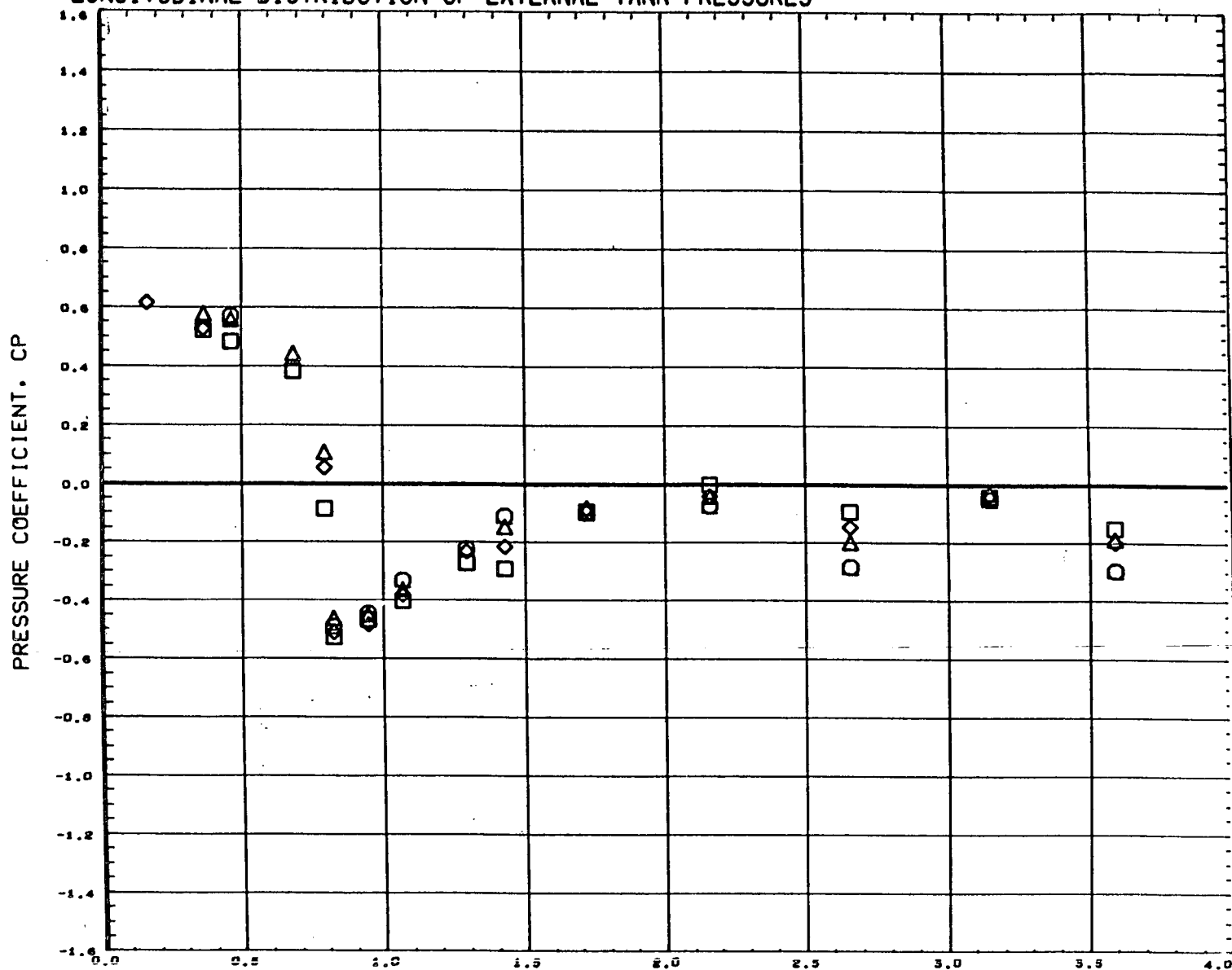
SYMBOL ○ △ ◇ □	PHI	ALPHA	MACH	PARAMETRIC VALUES	
	0.000	- 4.000	1.200	BETA	0.000 ORBINC - 1.500
	15.000				
	30.000				
	45.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 79

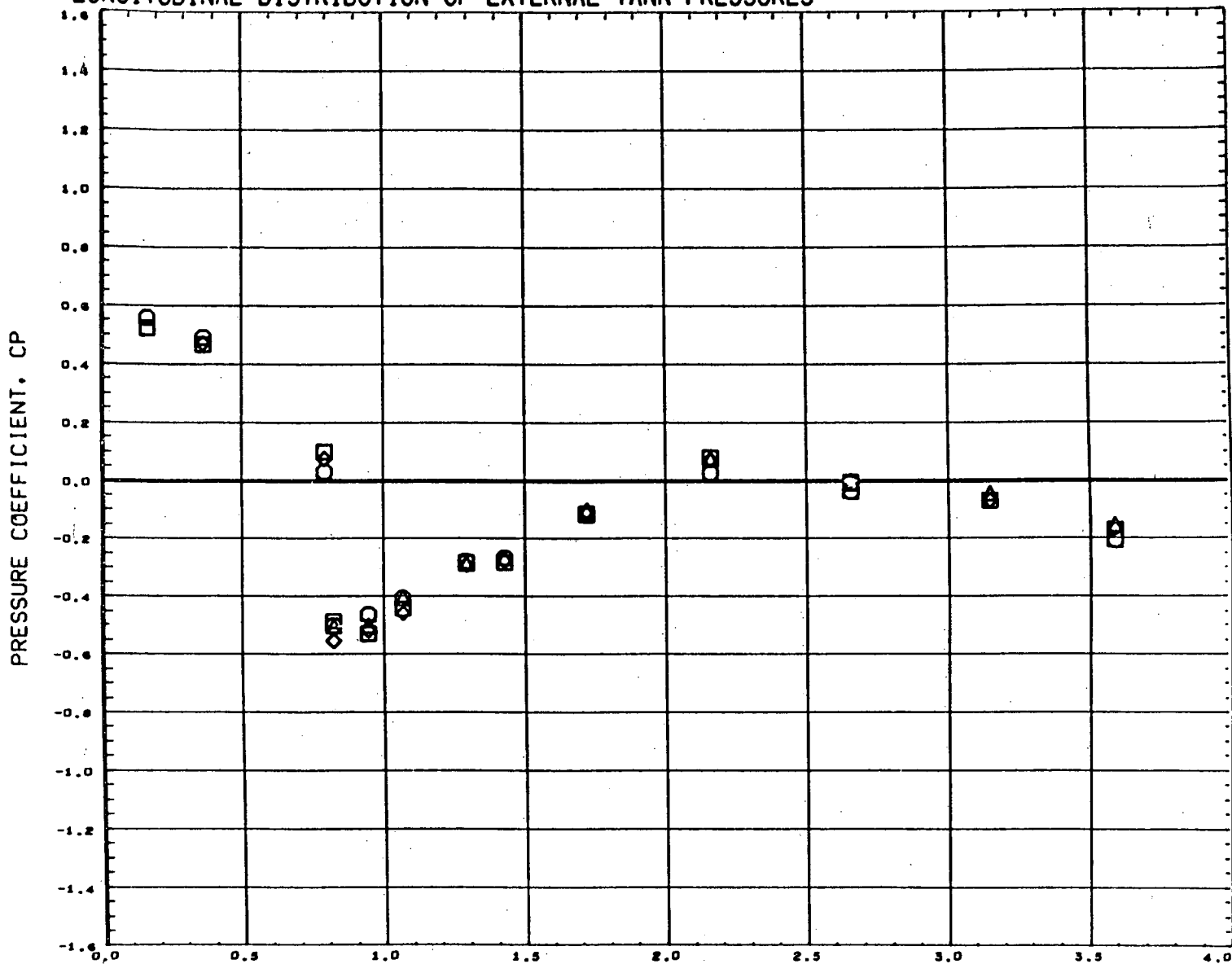
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60,000	- 4,000	1.200	BETA	0,000 ORBINC - 1,500
△	75,000				
◇	90,000				
□	100,000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

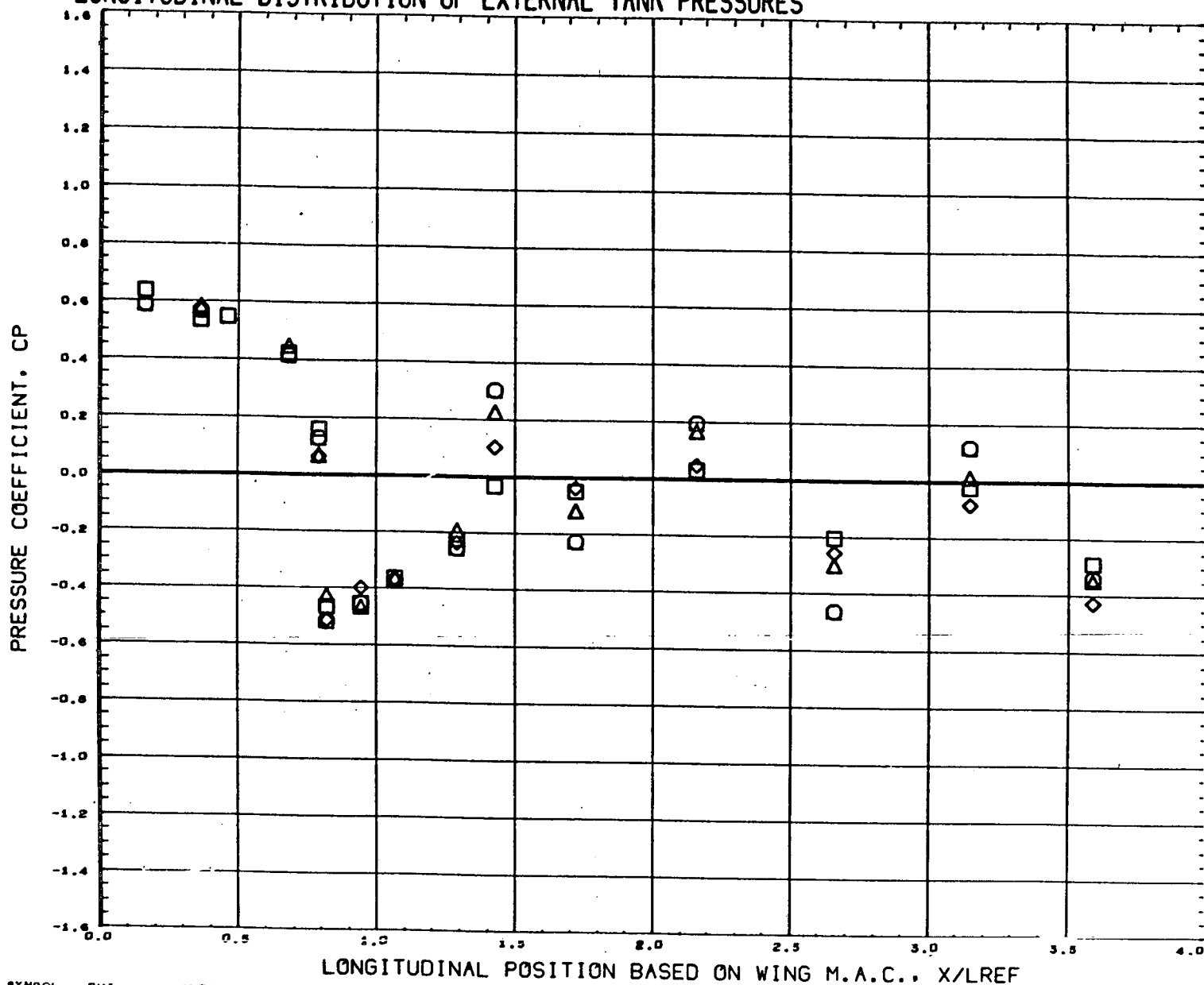


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	4.000	1.200	0.000	ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



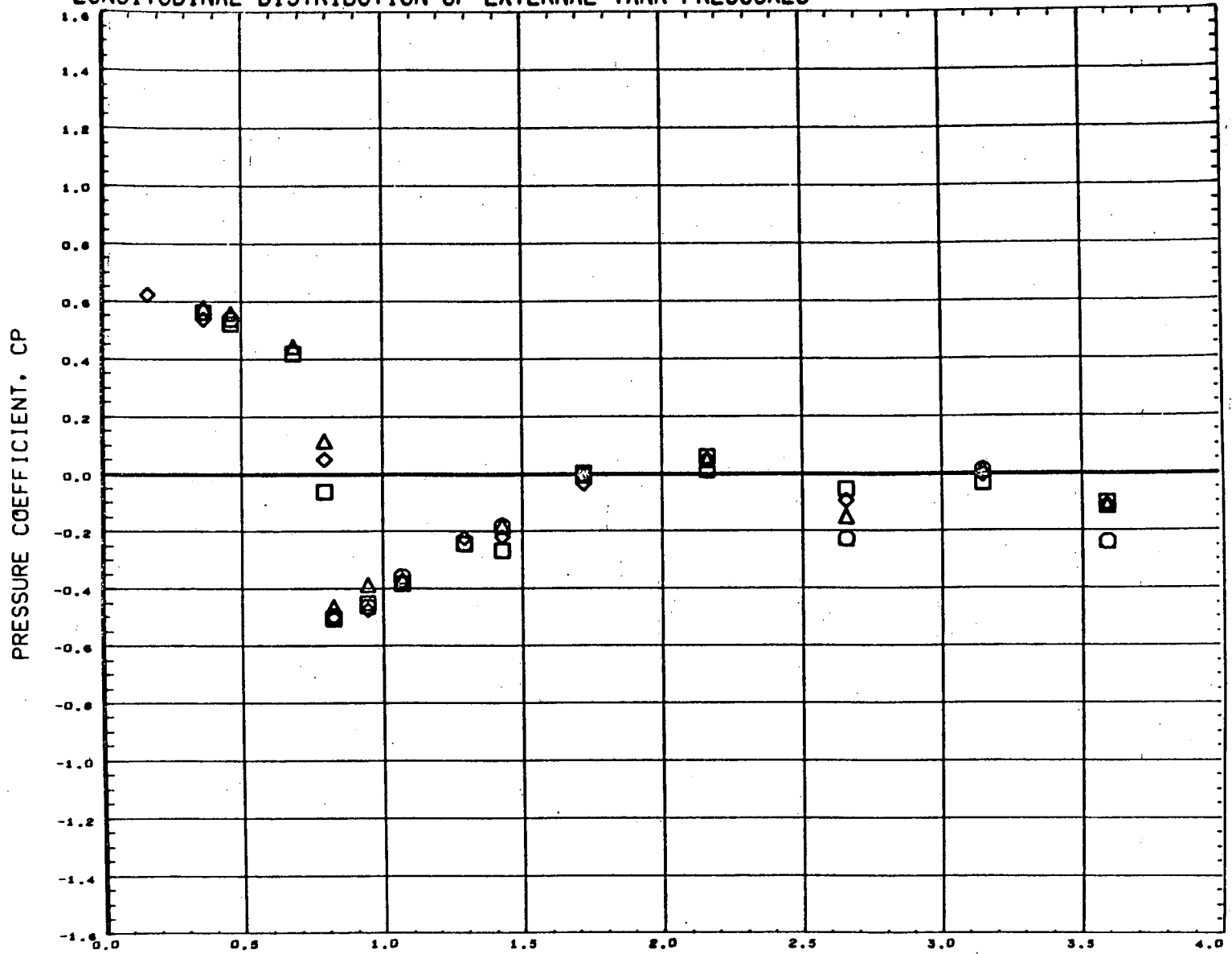
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	1.200	BETA	0.000 ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 82

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○
 △
 ◇
 □

PHI
 60.000
 75.000
 90.000
 100.000

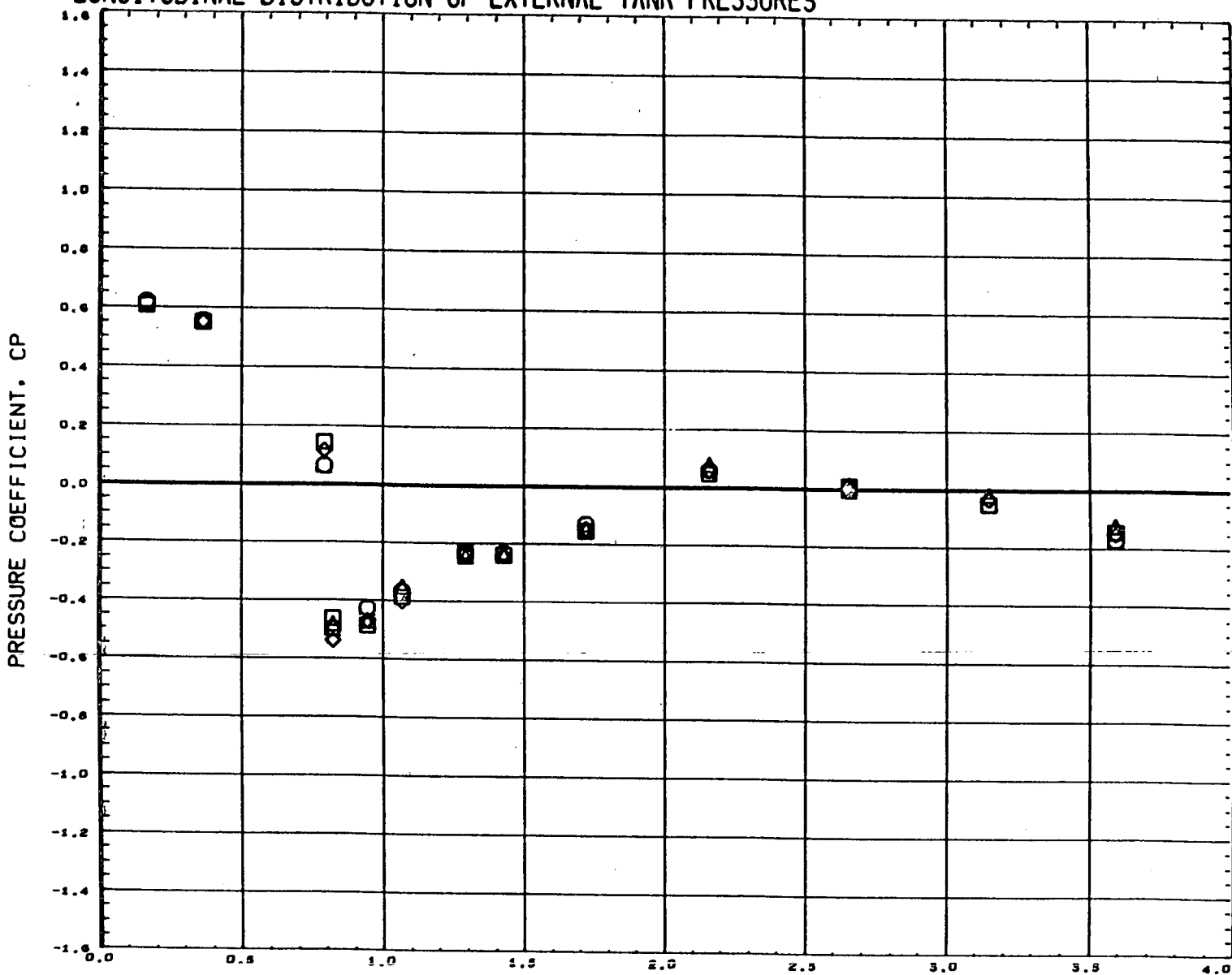
ALPHA
 0.000

MACH
 1.200

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



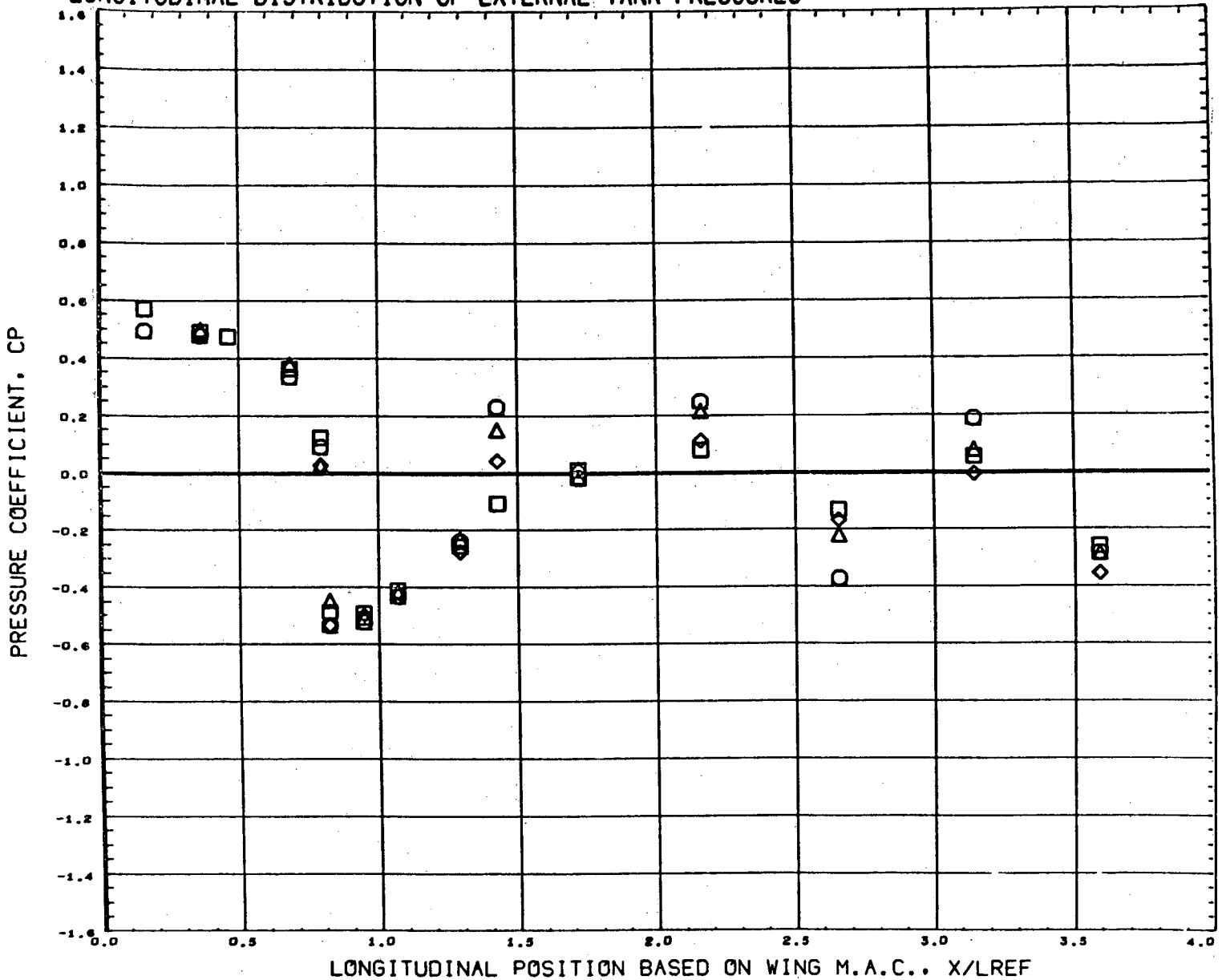
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	0.000	1.200
△	144.000		
◇	162.000		
□	180.000		

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



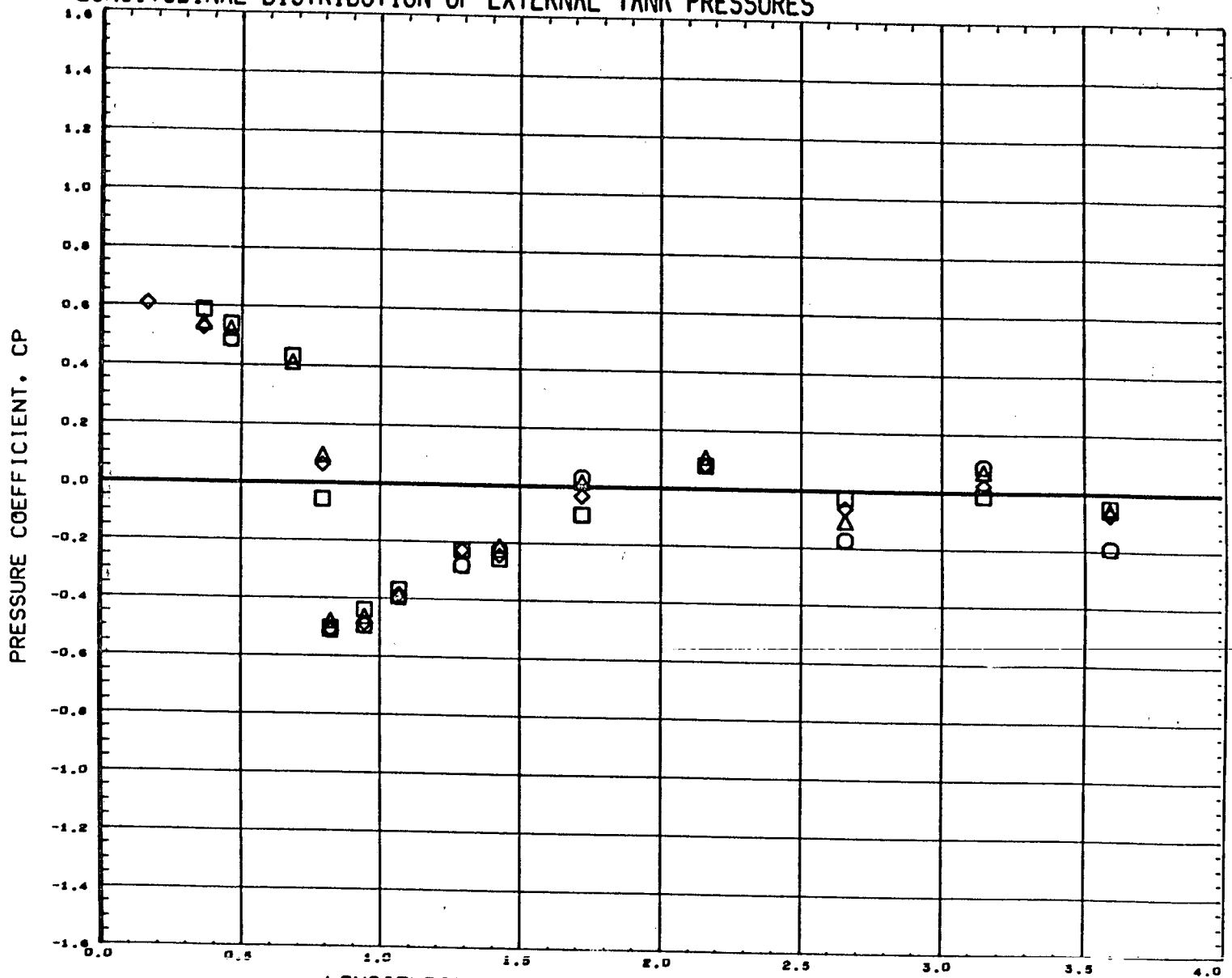
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	1.200	BETA	0.000	ORBINC - 1.500
△	15.000					
◇	30.000					
□	45.000					

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 85

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 60.000 4.000 1.200
 △ 75.000
 ◇ 90.000
 □ 108.000

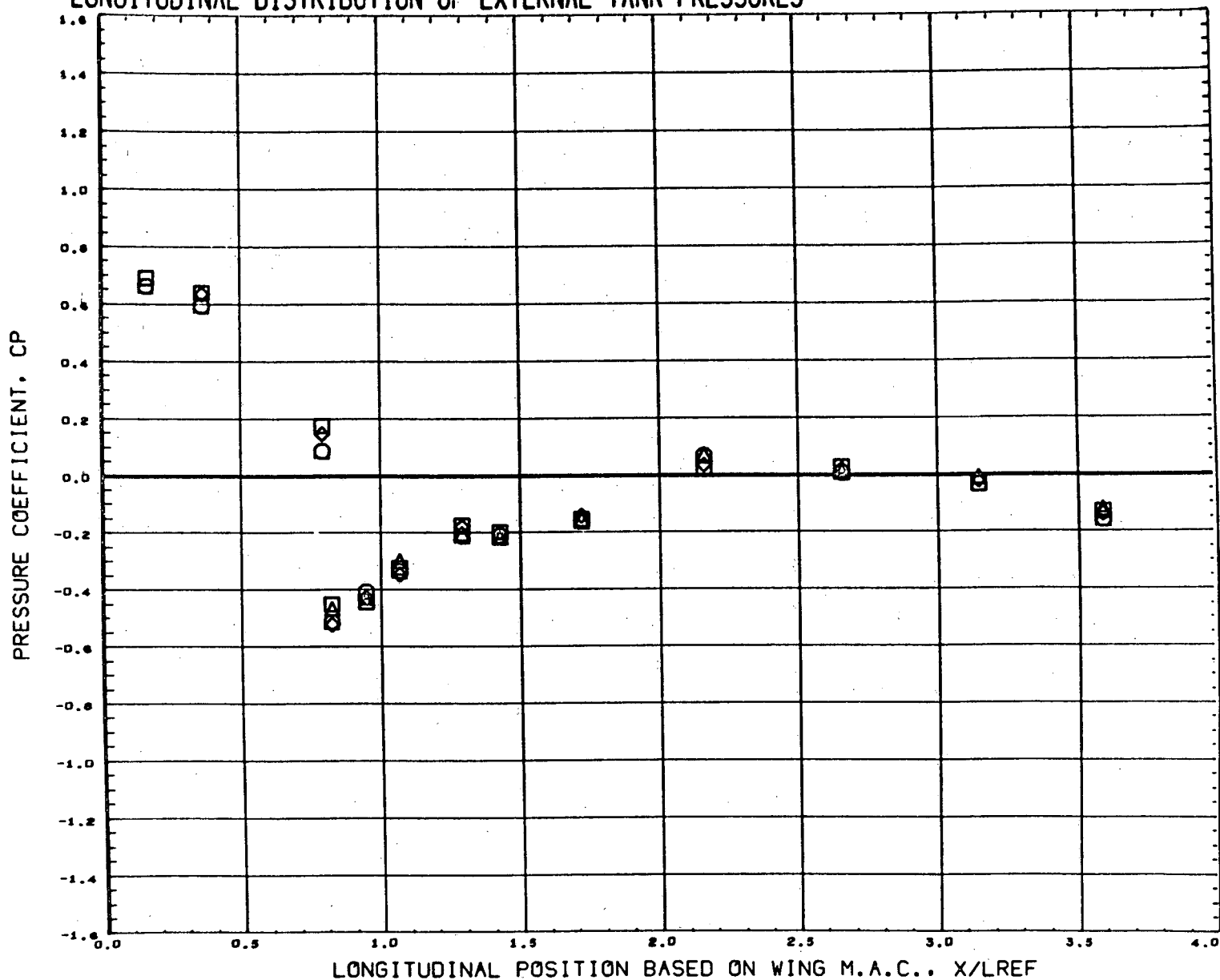
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 86

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



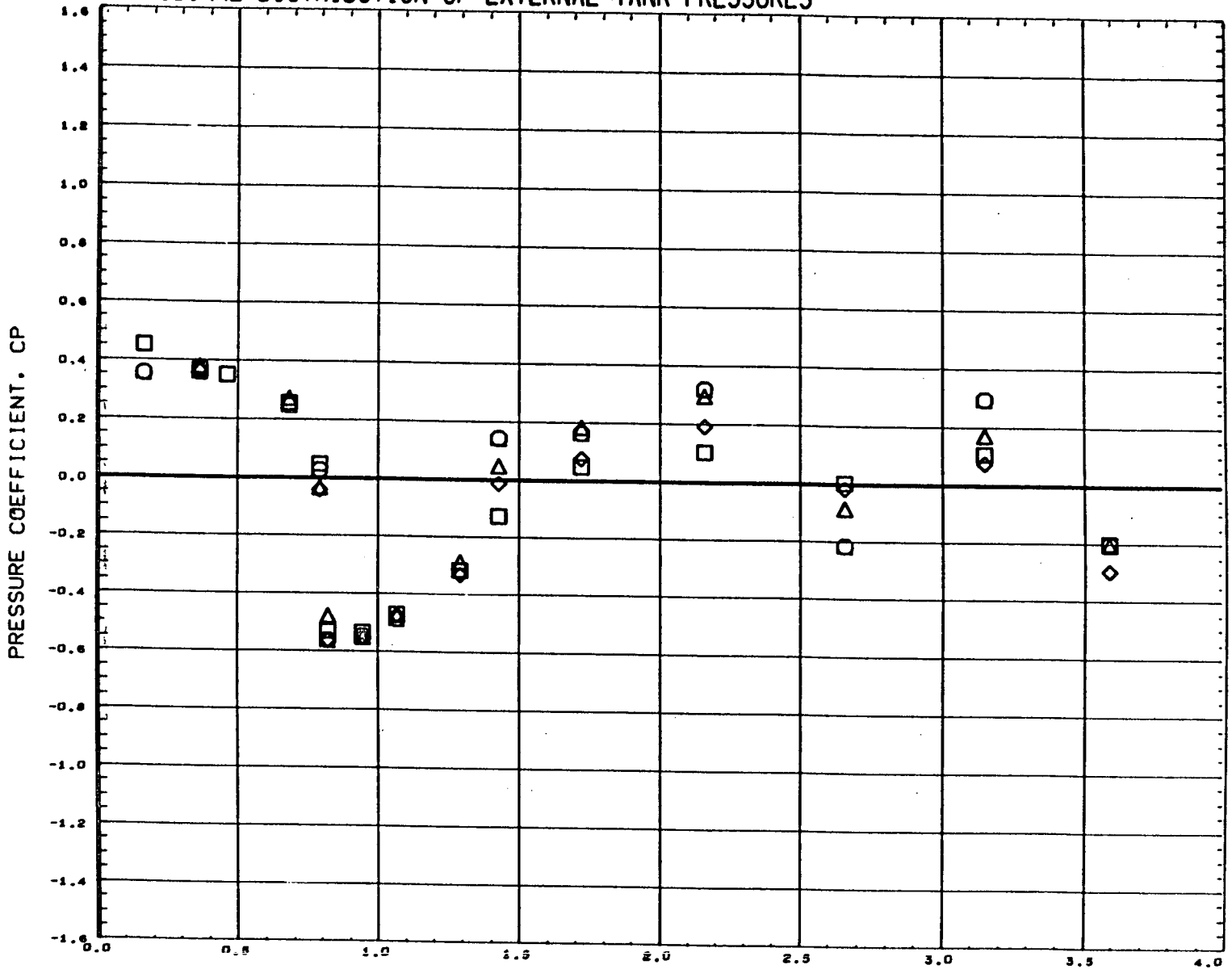
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	4.000	1.200	BETA	0.000 ORBINC - 1.500
△	144.000				
◇	162.000				
□	160.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 87

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF				PARAMETRIC VALUES	
SYMBOL	PHI	ALPHA	MACH	BETA	ORBINC
○	0.000	10.000	1.200	0.000	1.500
△	15.000				
◇	30.000				
□	45.000				

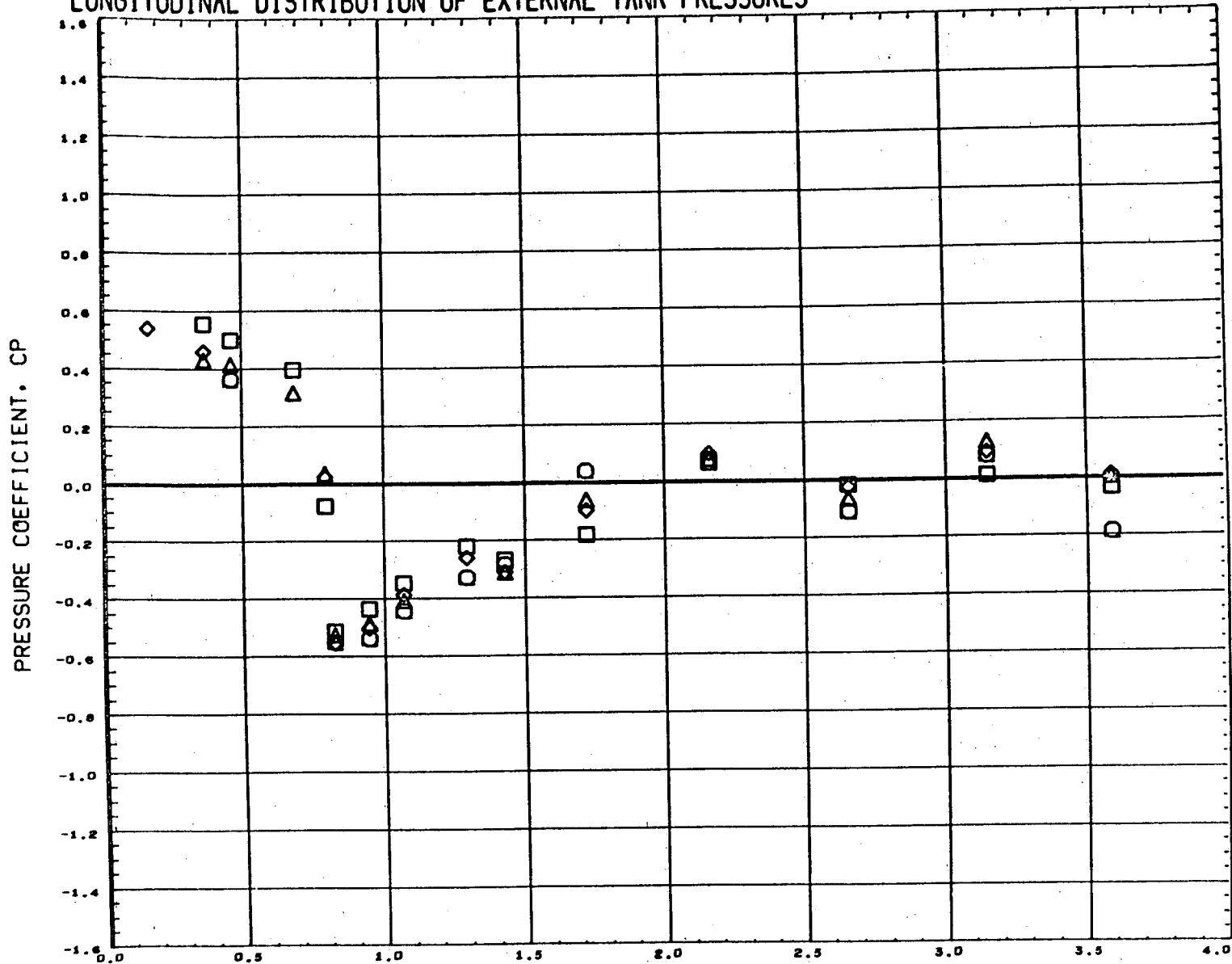
REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 88

C

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.200
△	75.000		
◇	90.000		
□	108.000		

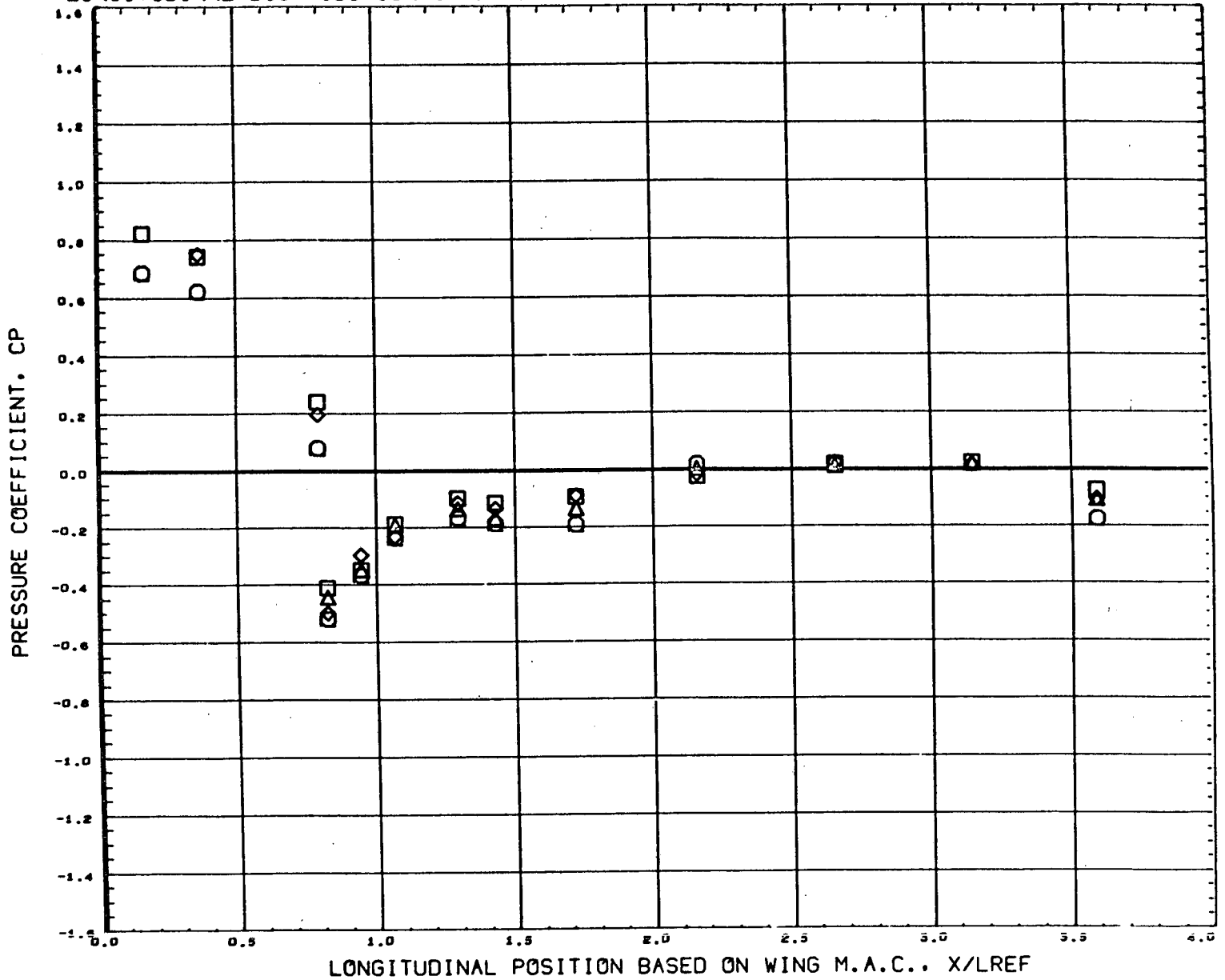
PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 89

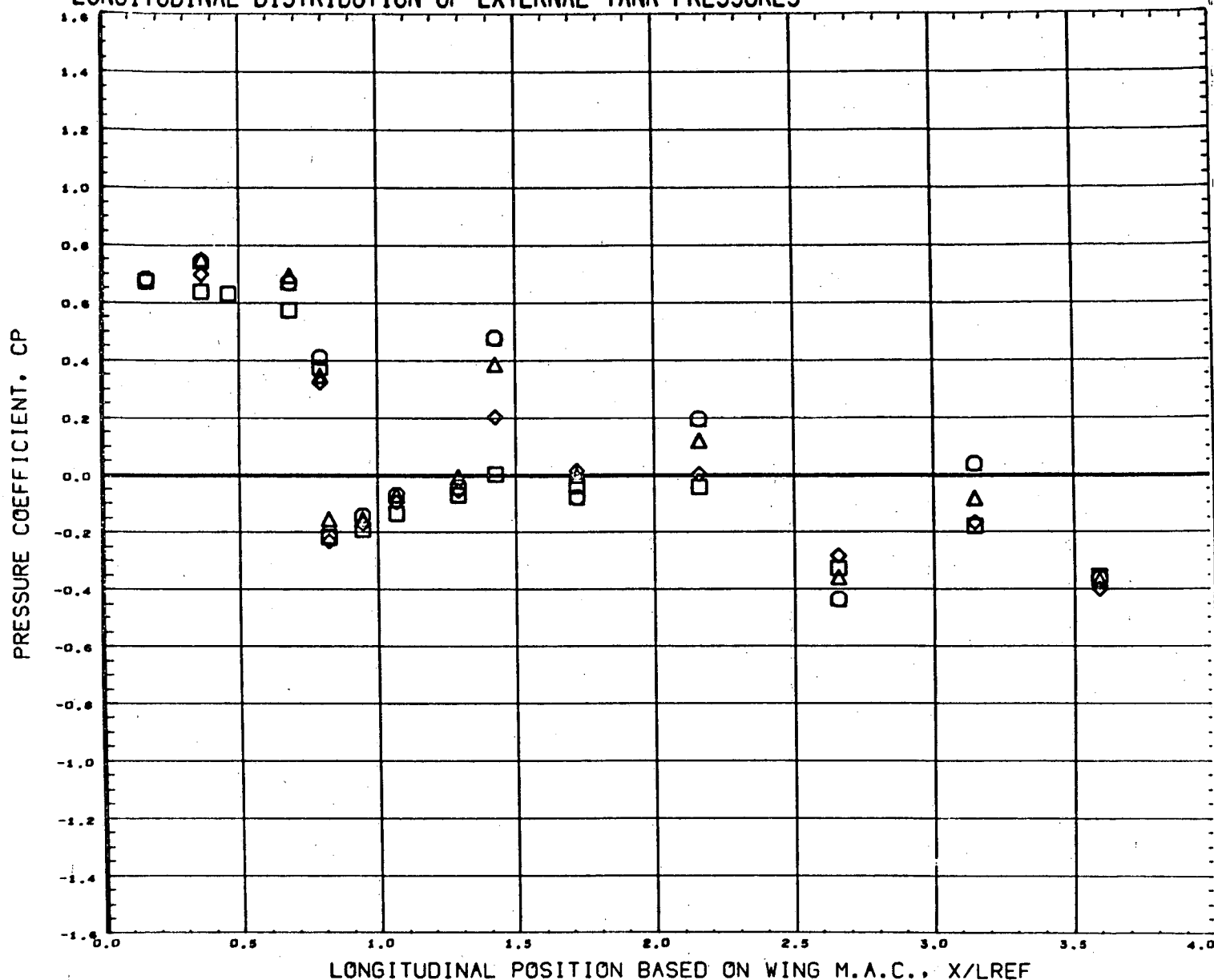
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	126,000	10,000	1.200	0.000	ORBINC	-	1.500
△	144,000						
◇	162,000						
□	180,000						

REFERENCE FILE

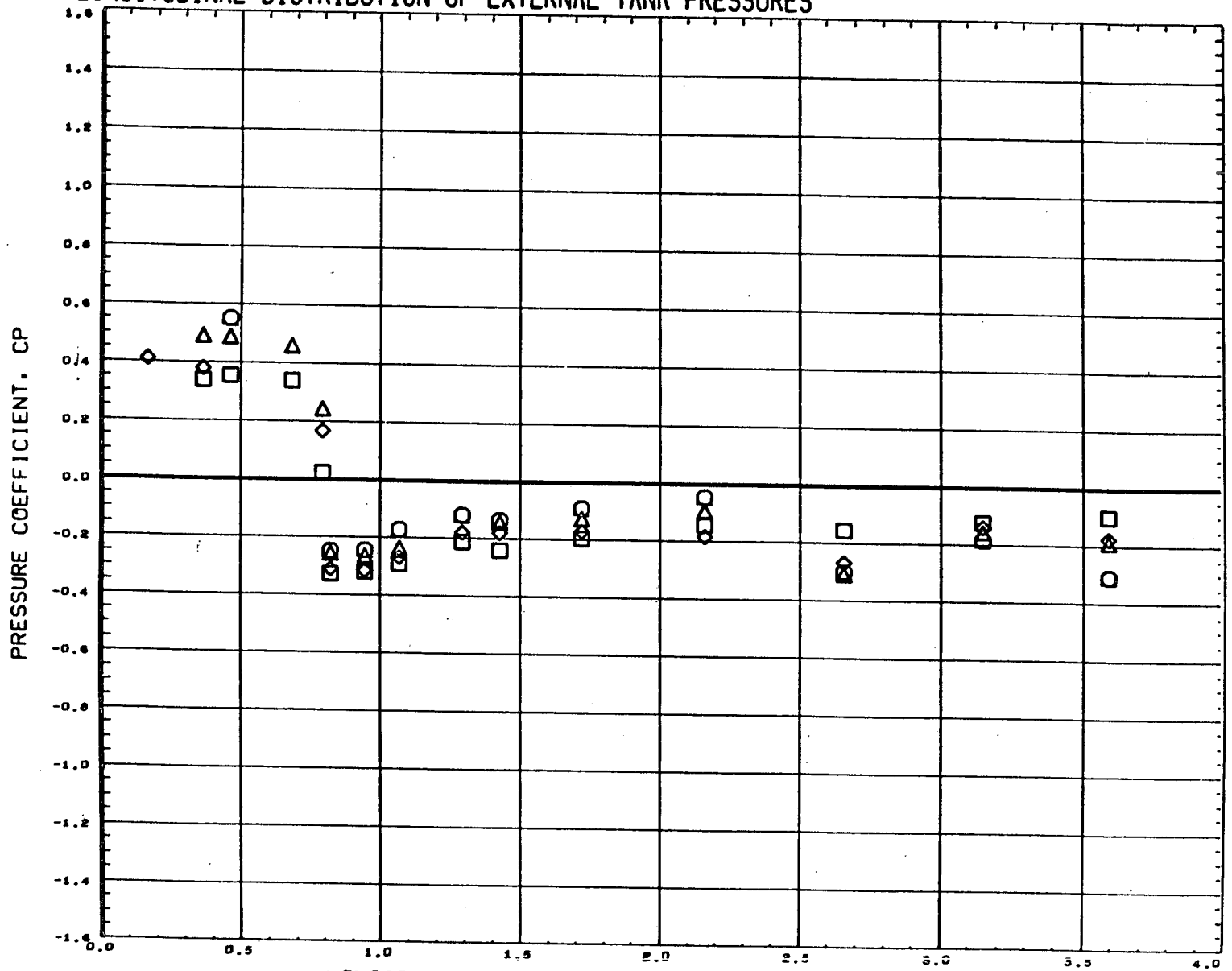
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 10.000	1.460	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



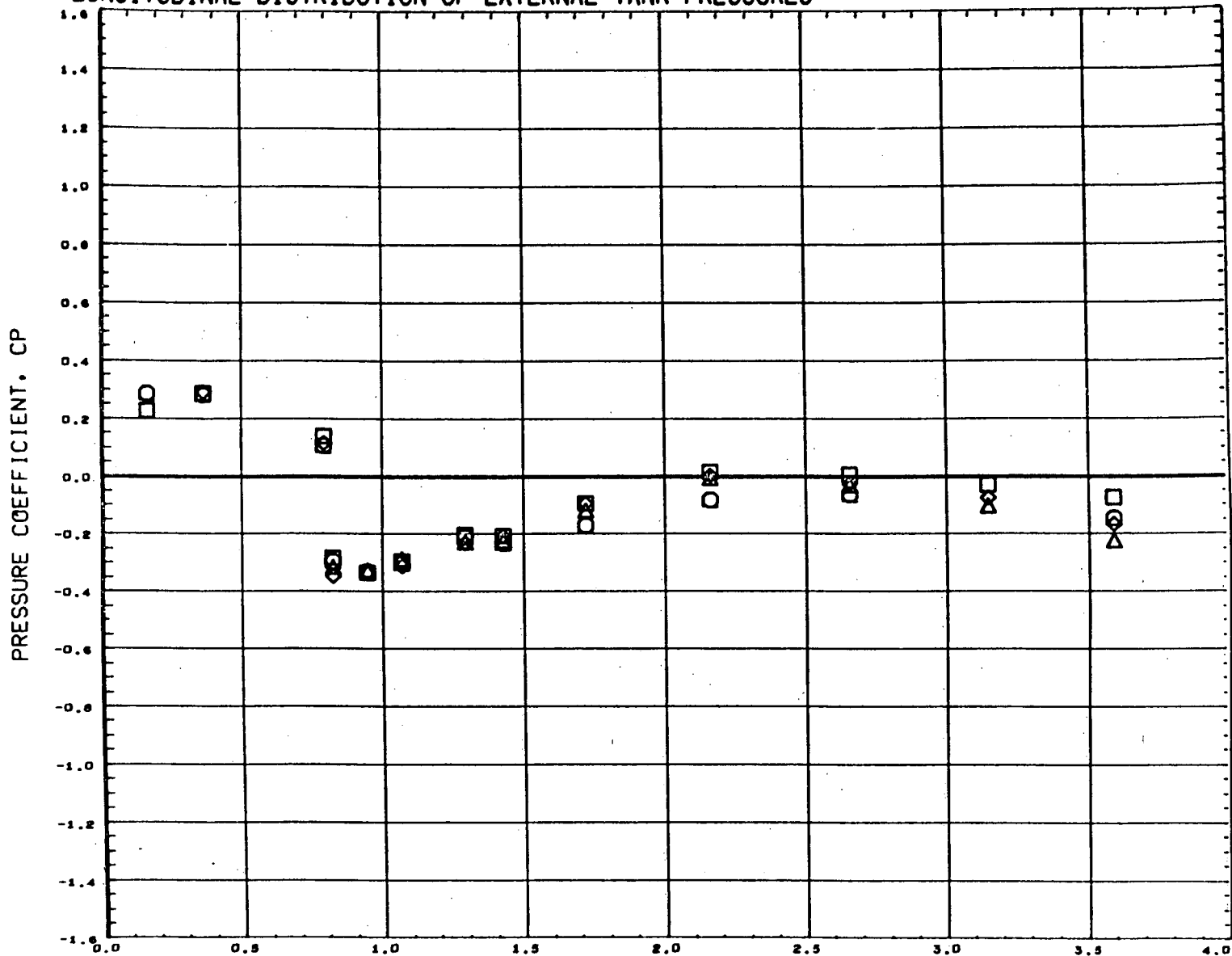
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	- 10.000	1.460	0.000	ORBINC - 1.500
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 92

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

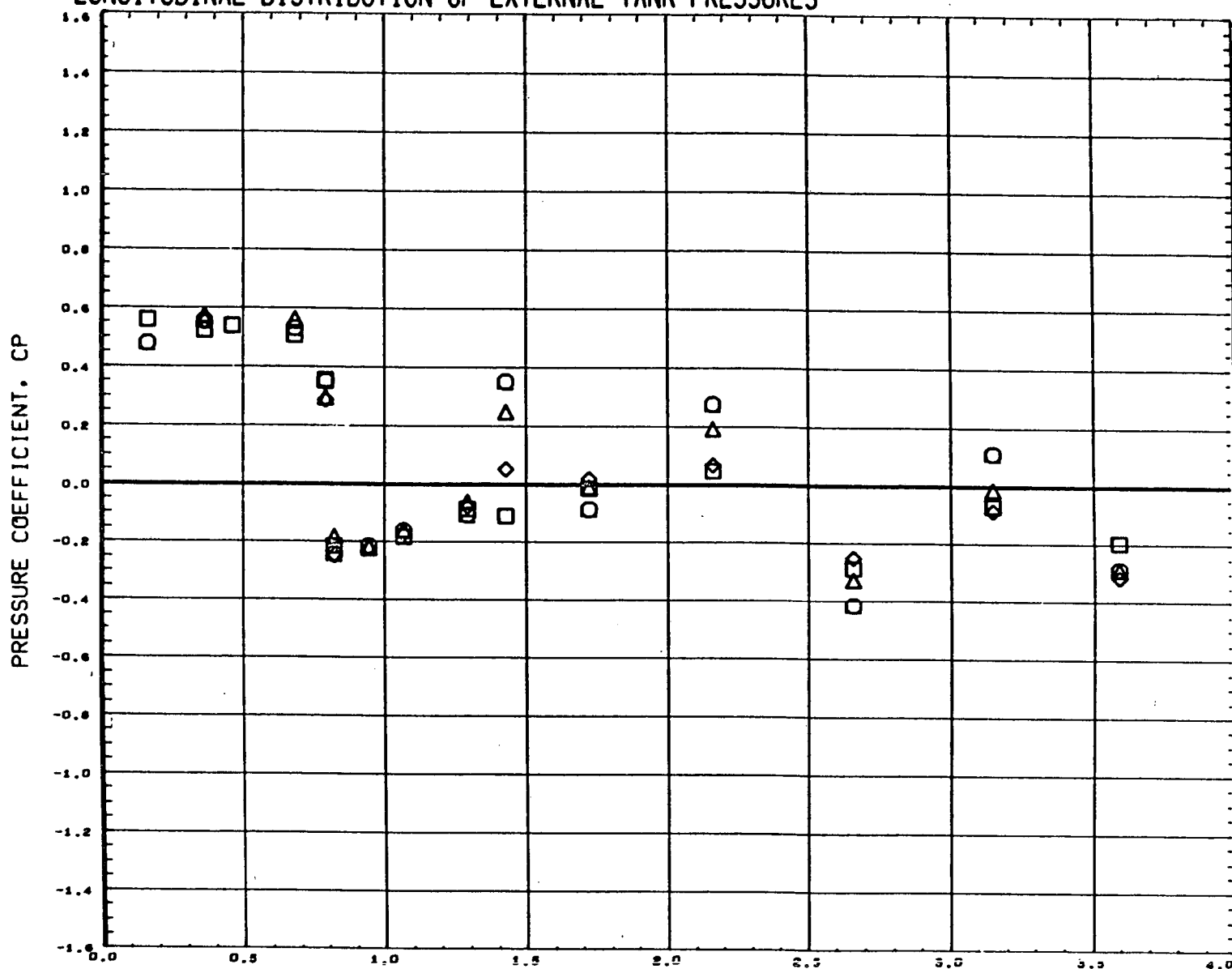


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	- 10.000	1.460	0.000	ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



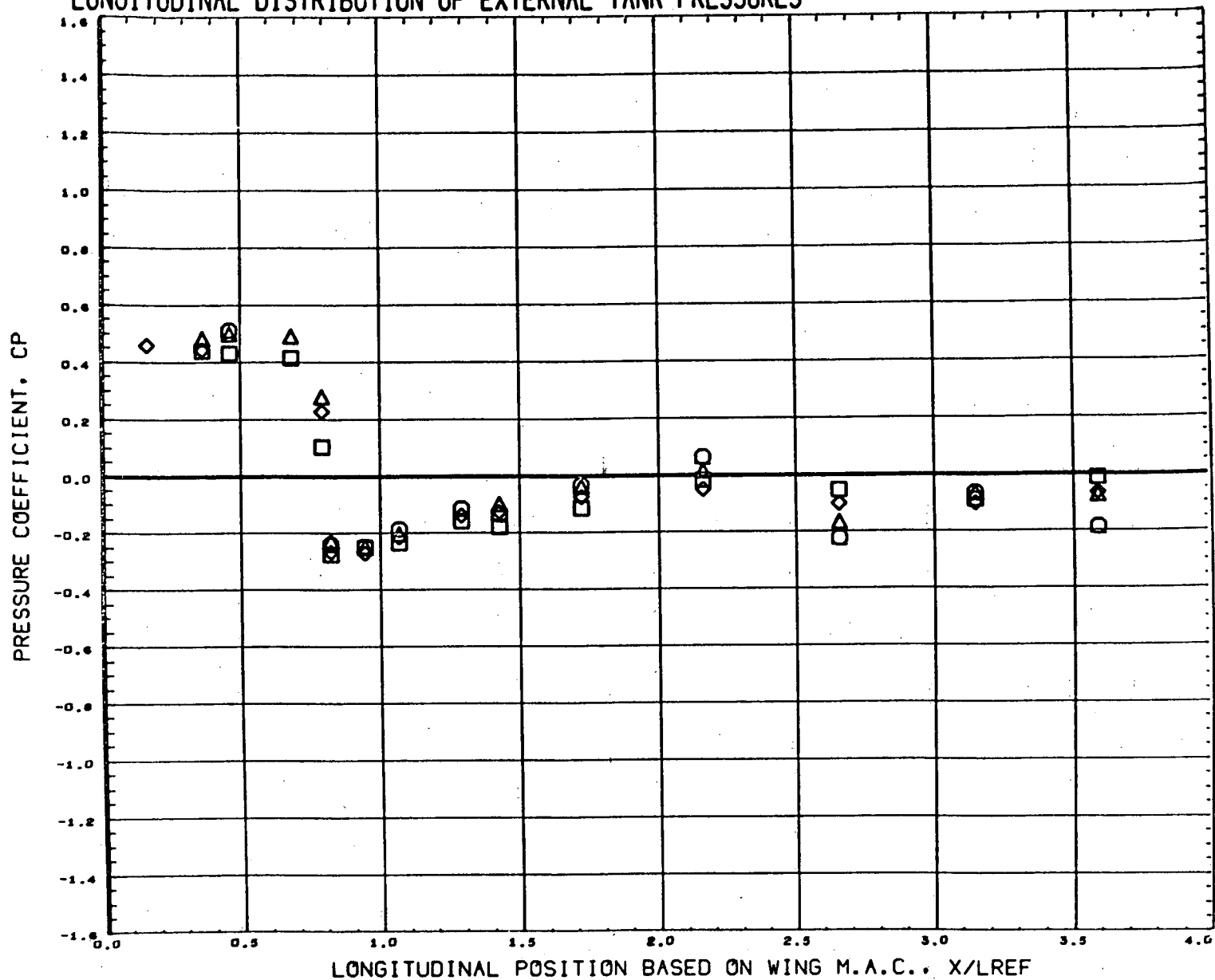
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL PHI ALPHA MACH
 ○ 0.000 - 4.000 1.460
 △ 15.000
 ◇ 30.000
 □ 45.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500

REFERENCE FILE

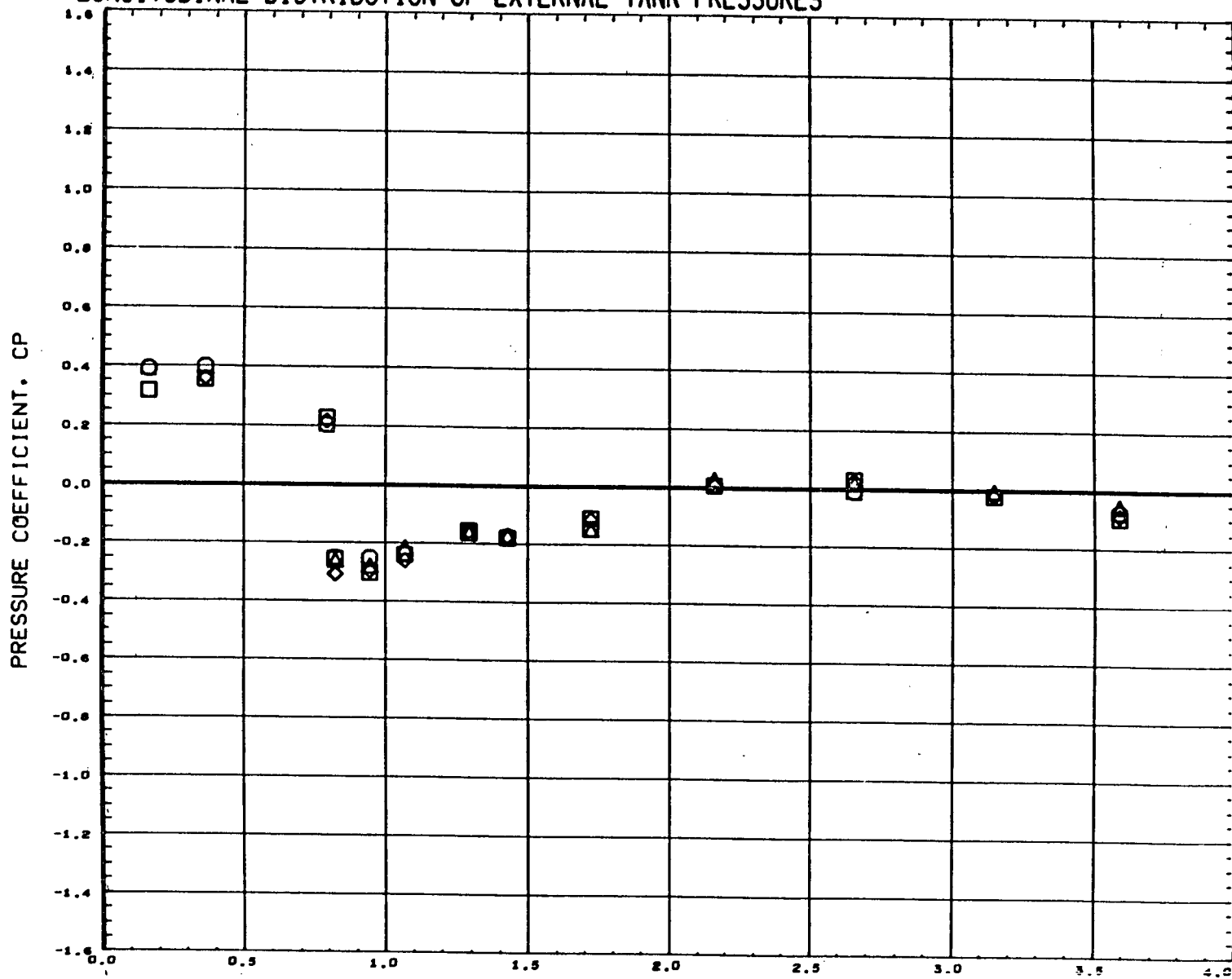
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL ○ △ ◇ □	PHI	ALPHA	MACH	PARAMETRIC VALUES	
	60.000	4.000	1.460	BETA	0.000 ORBINC - 1.500
	75.000				
	90.000				
	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



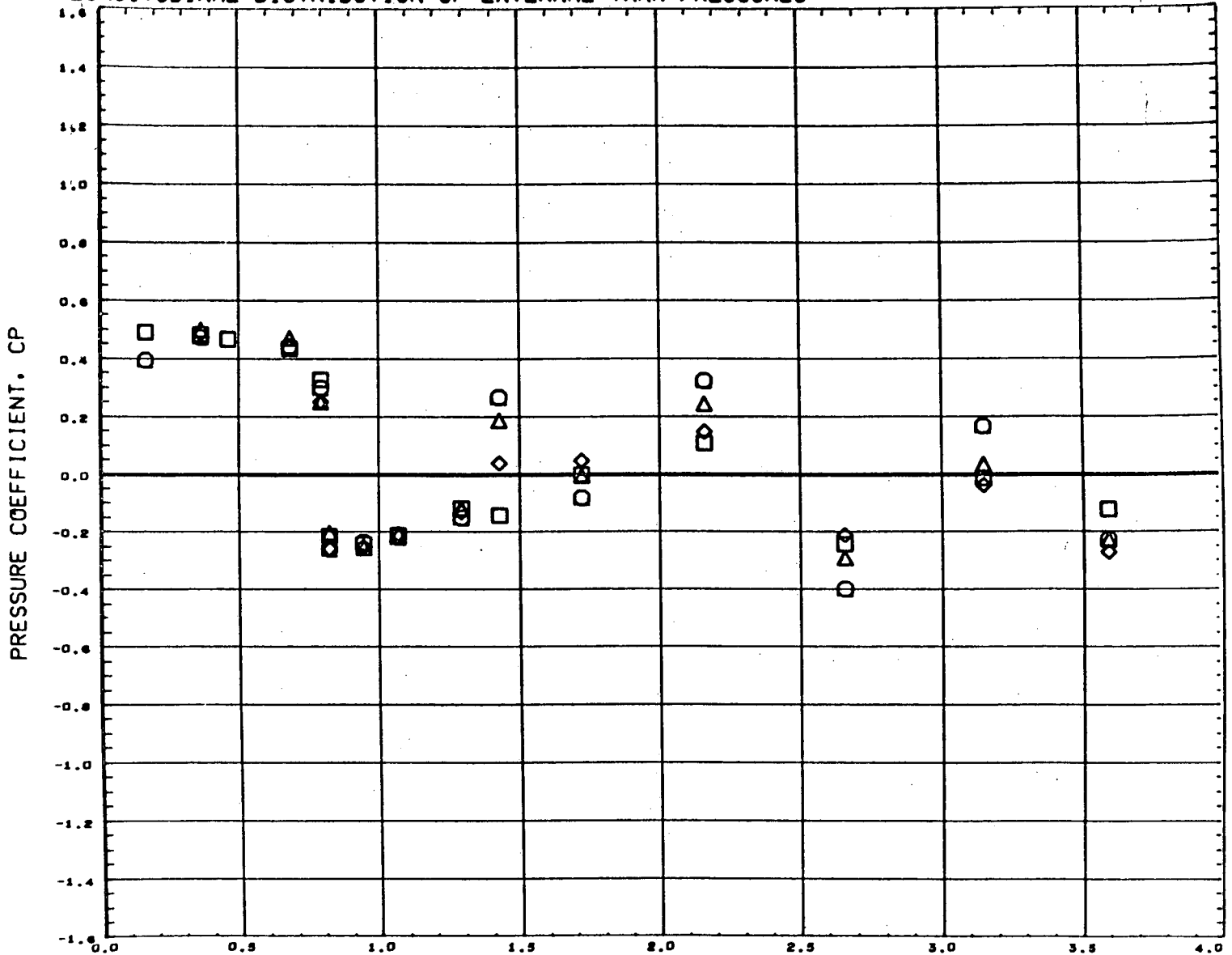
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	- 4.000	1.460	BETA	0.000 ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 96

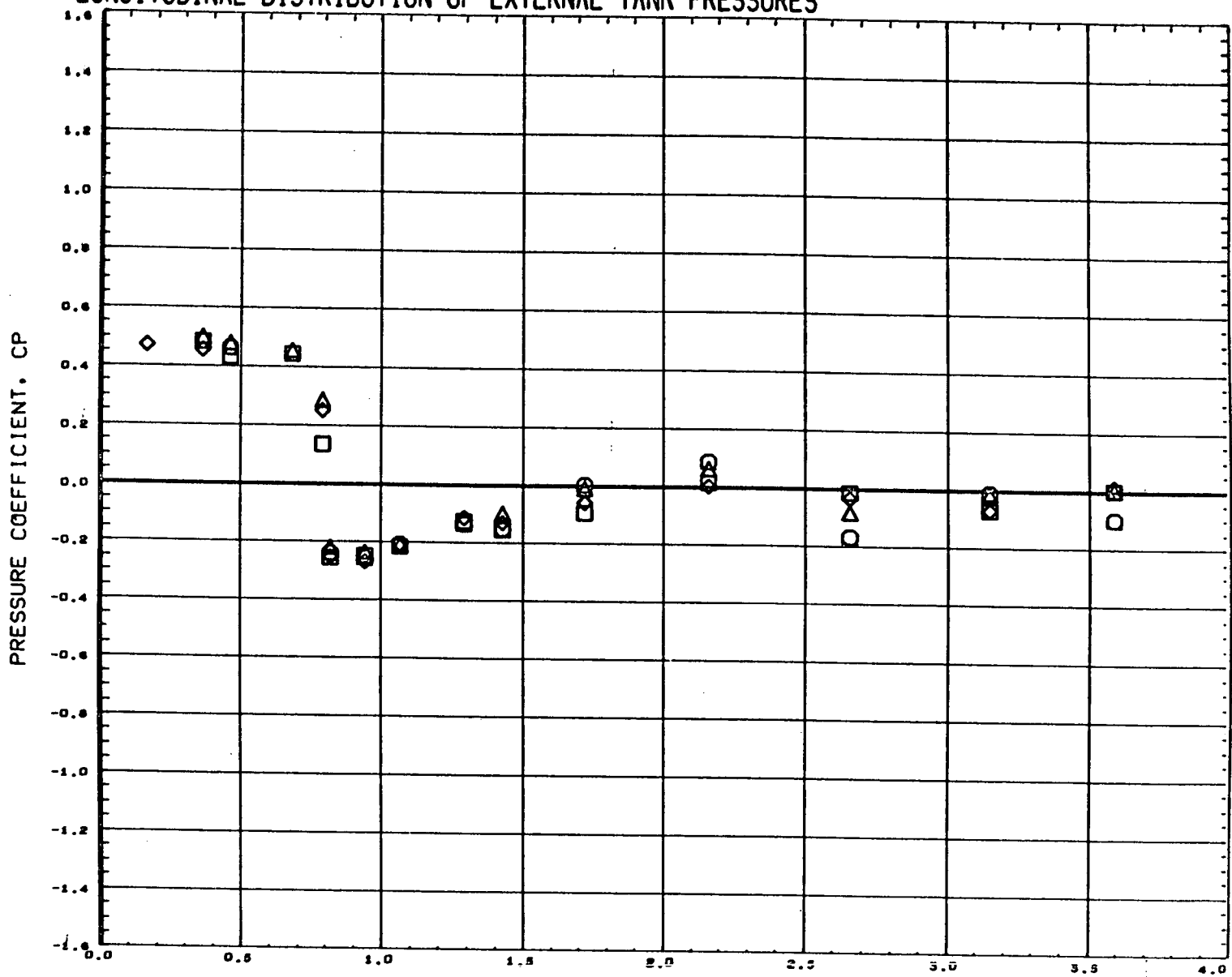
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	0.000	1.460	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	0.000	1.460
△	75.000		
◇	90.000		
□	106.000		

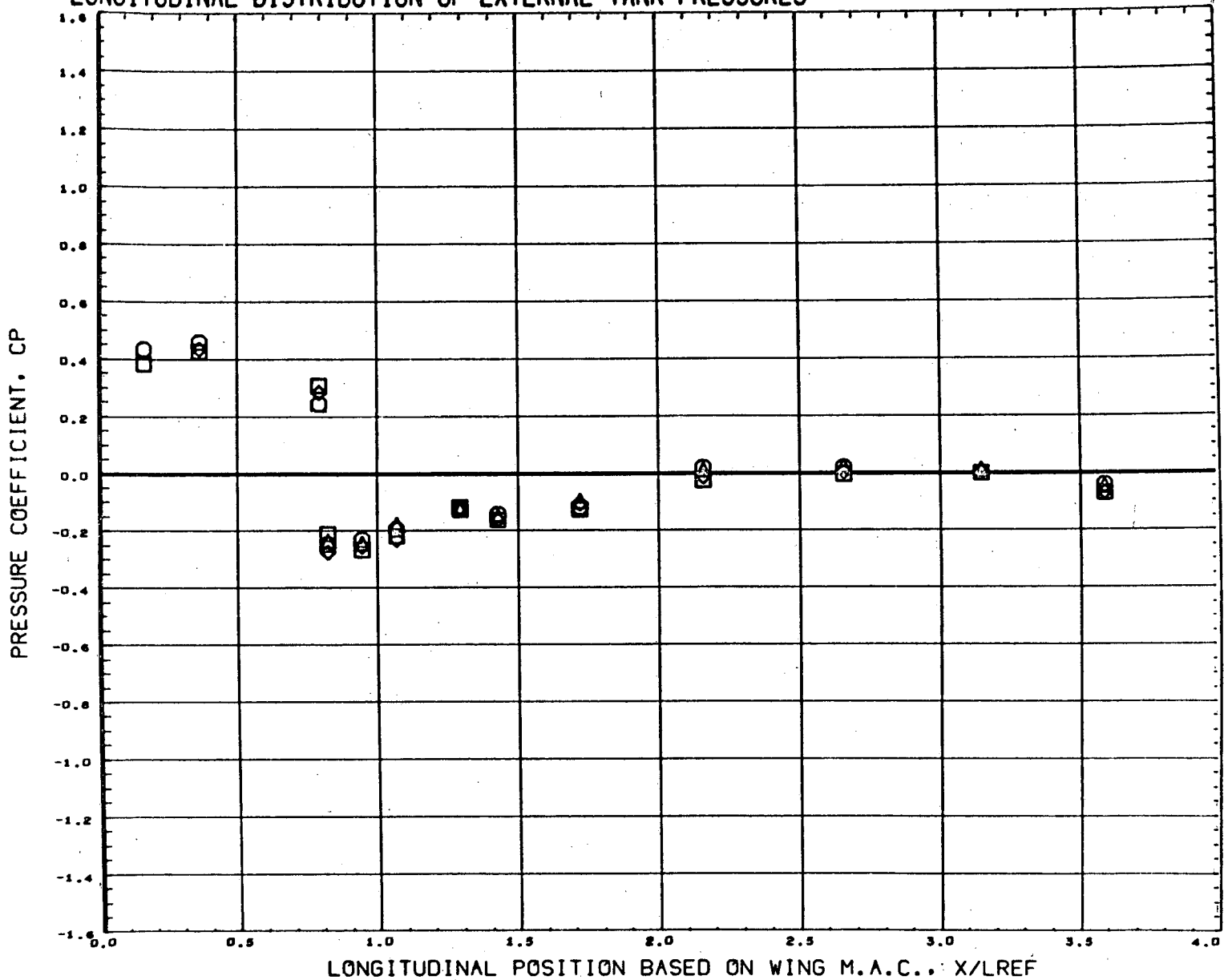
PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 98

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



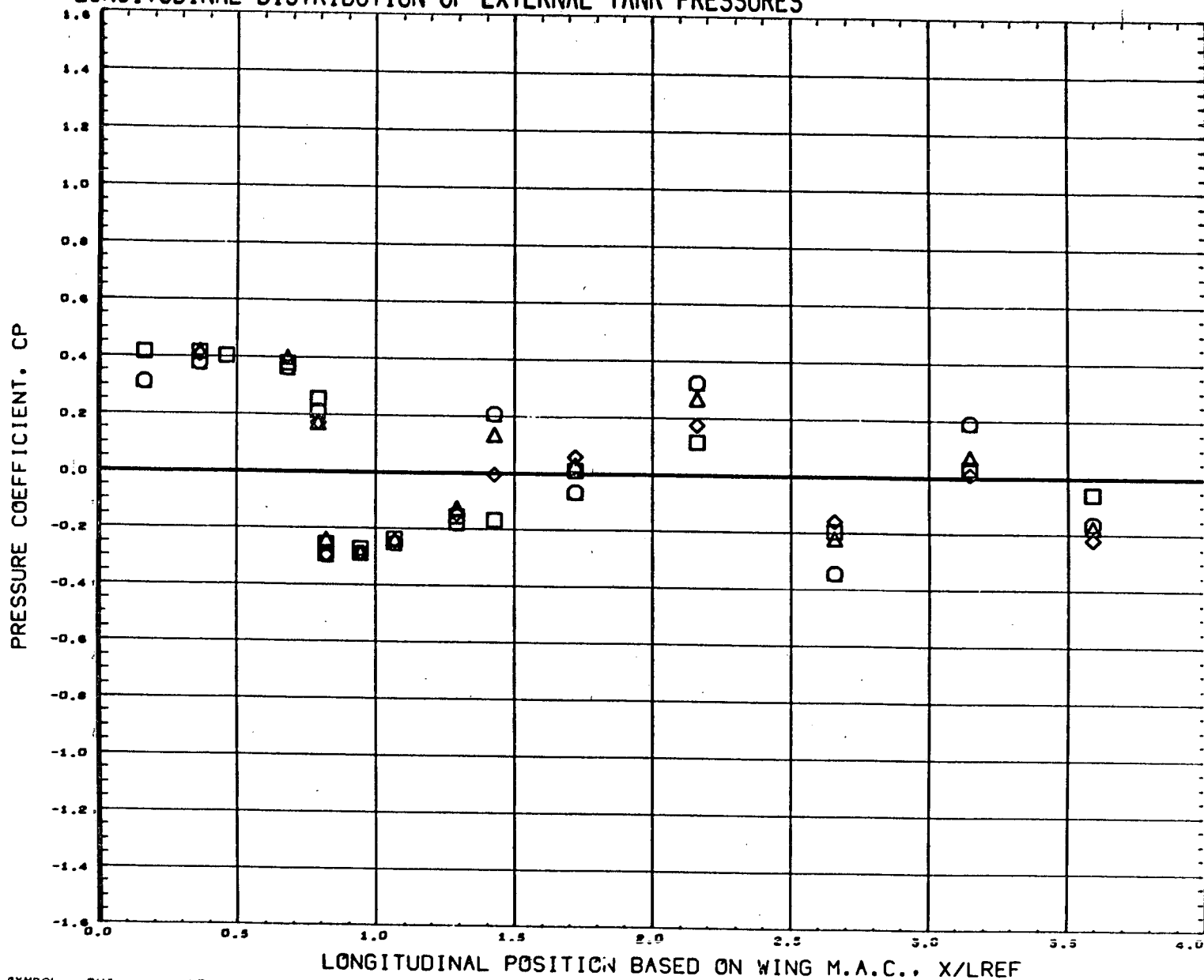
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	0.000	1.460	0.000	ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 99

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	0.000	4.000	1.460
△	15.000		
◇	30.000		
□	45.000		

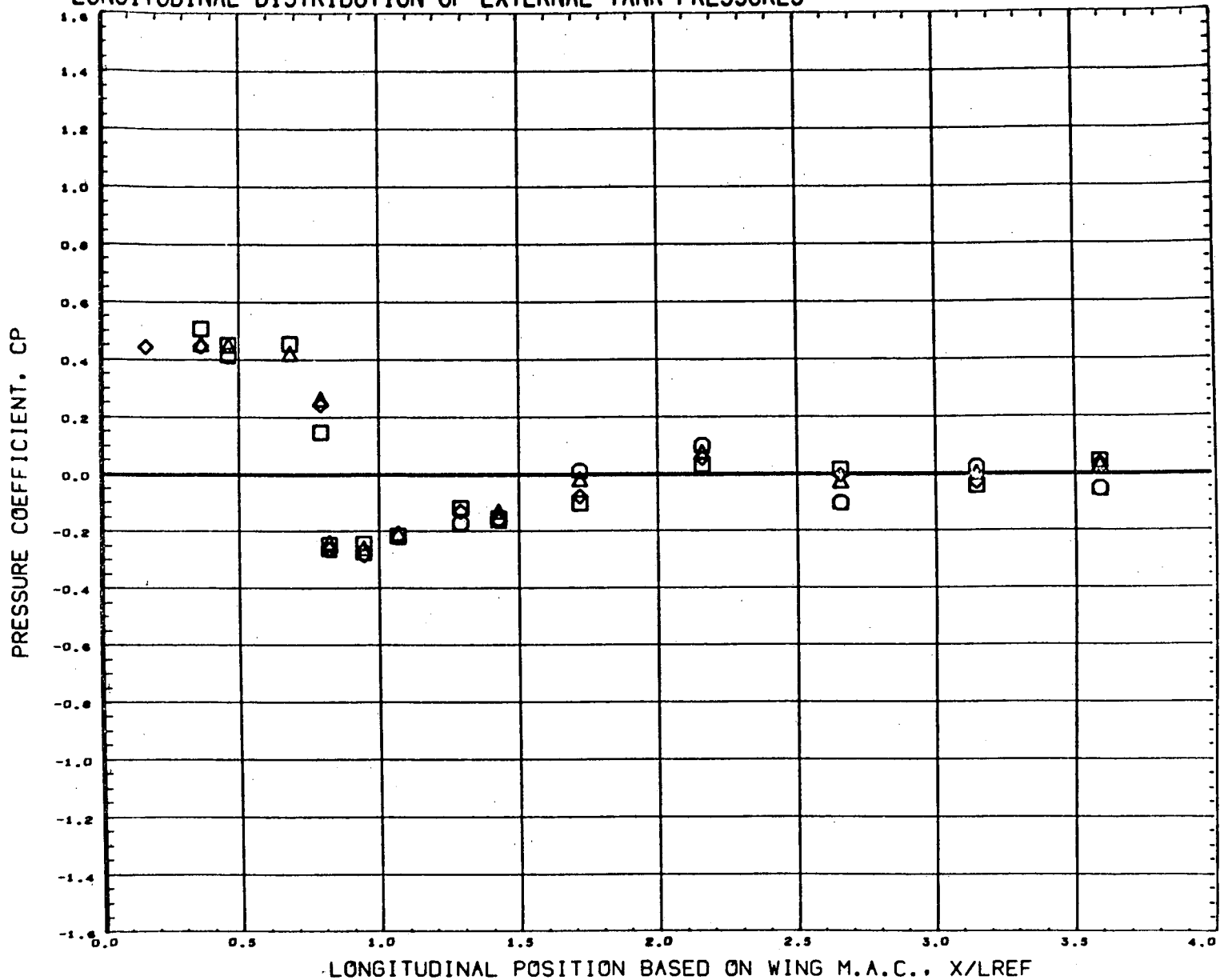
PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 100

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



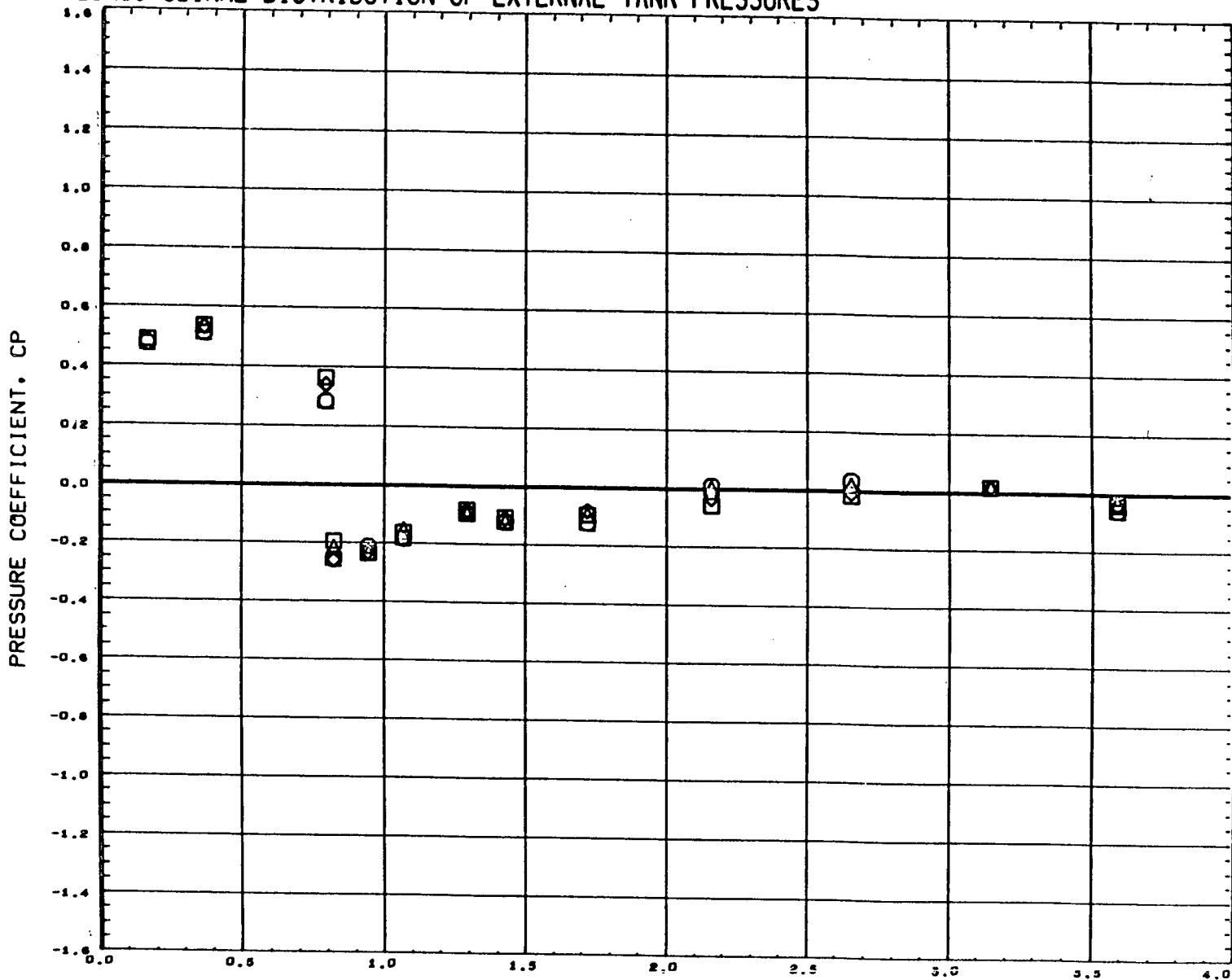
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	4.000	1.460	BETA	0.000	ORBINC - 1.500
△	75.000					
◇	90.000					
□	100.000					

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 101

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126,000	4.000	1.460	BETA	0.000 ORBINC - 1.500
△	144,000				
◇	162,000				
□	180,000				

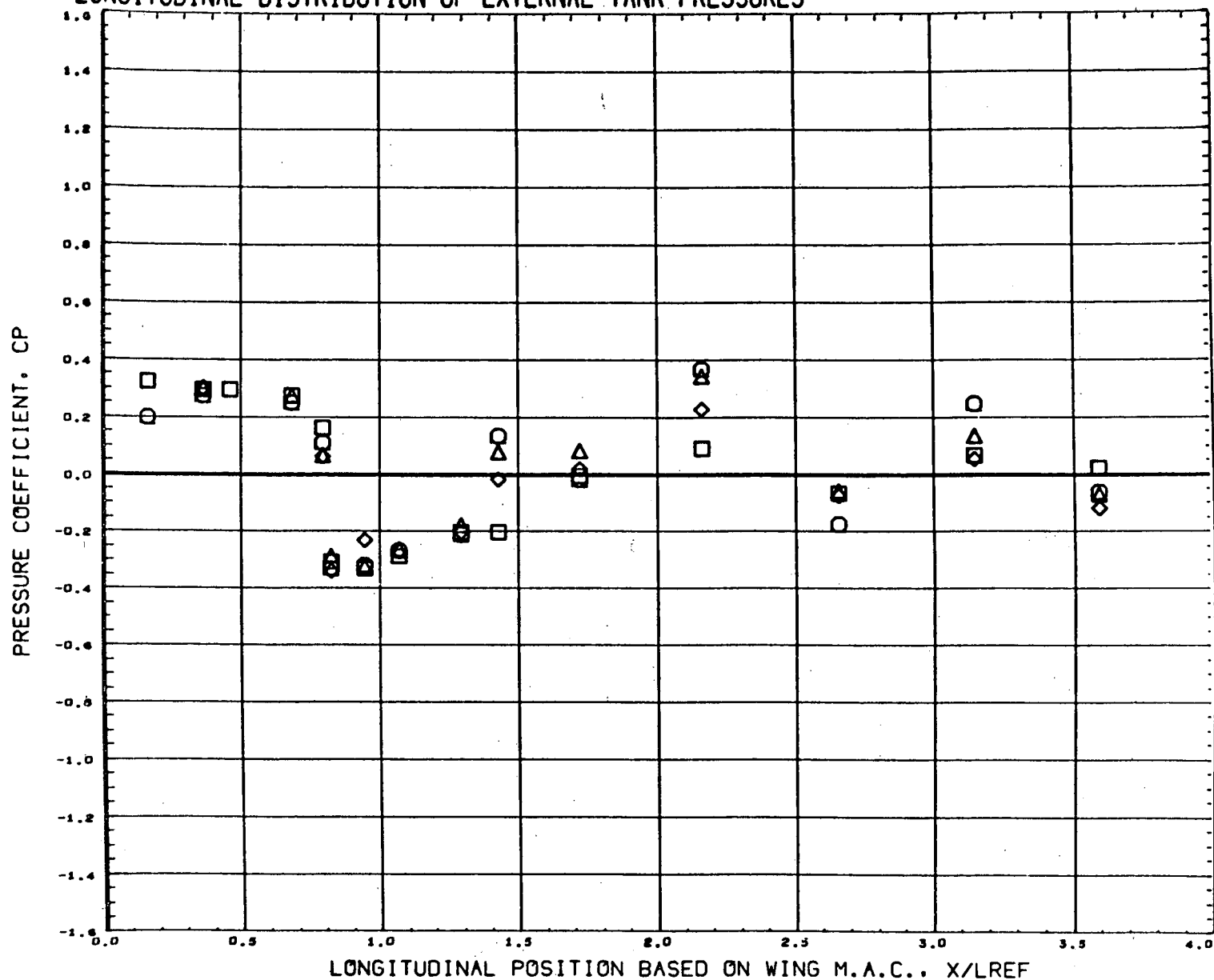
REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 102

D

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



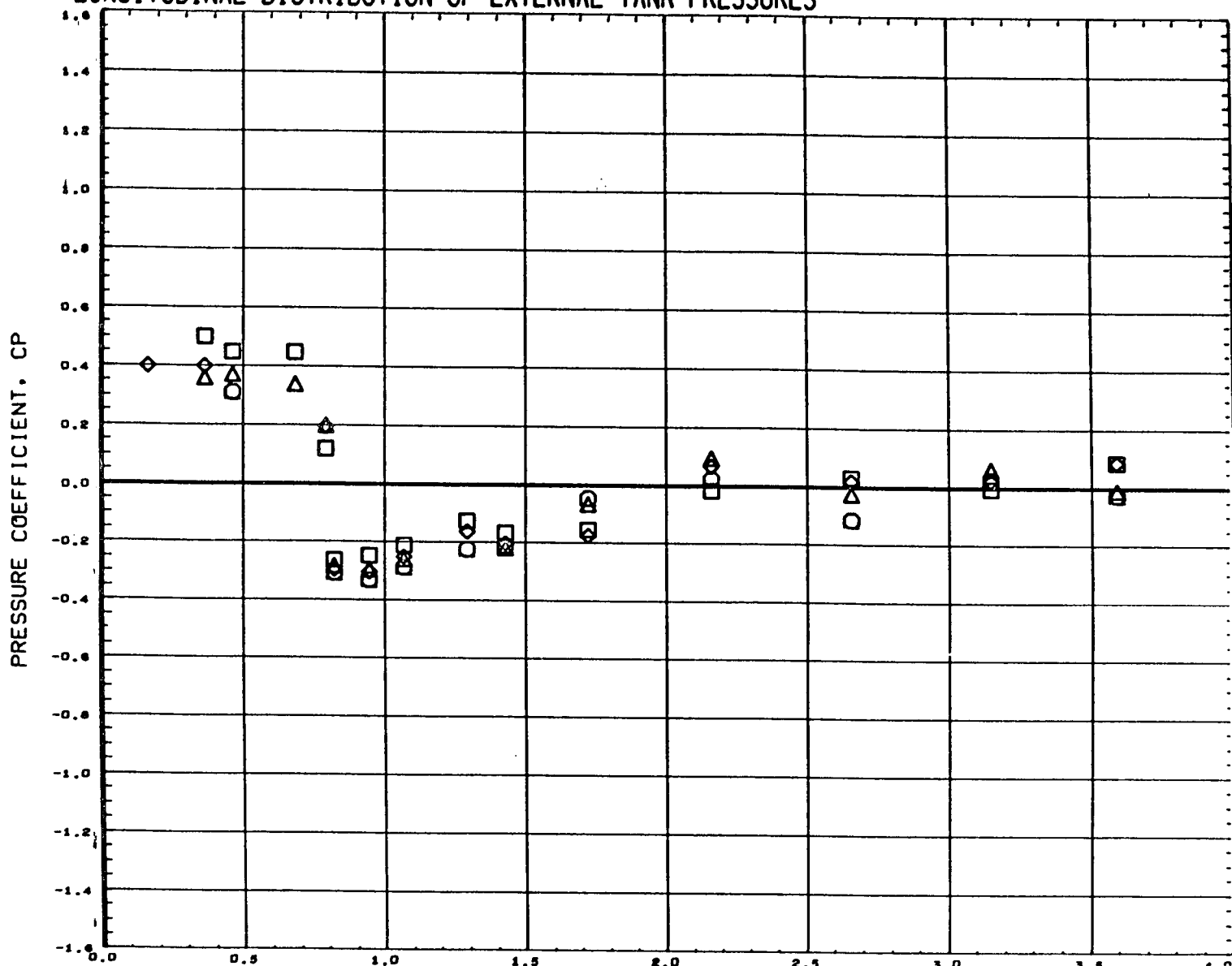
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	1.460	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 103

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

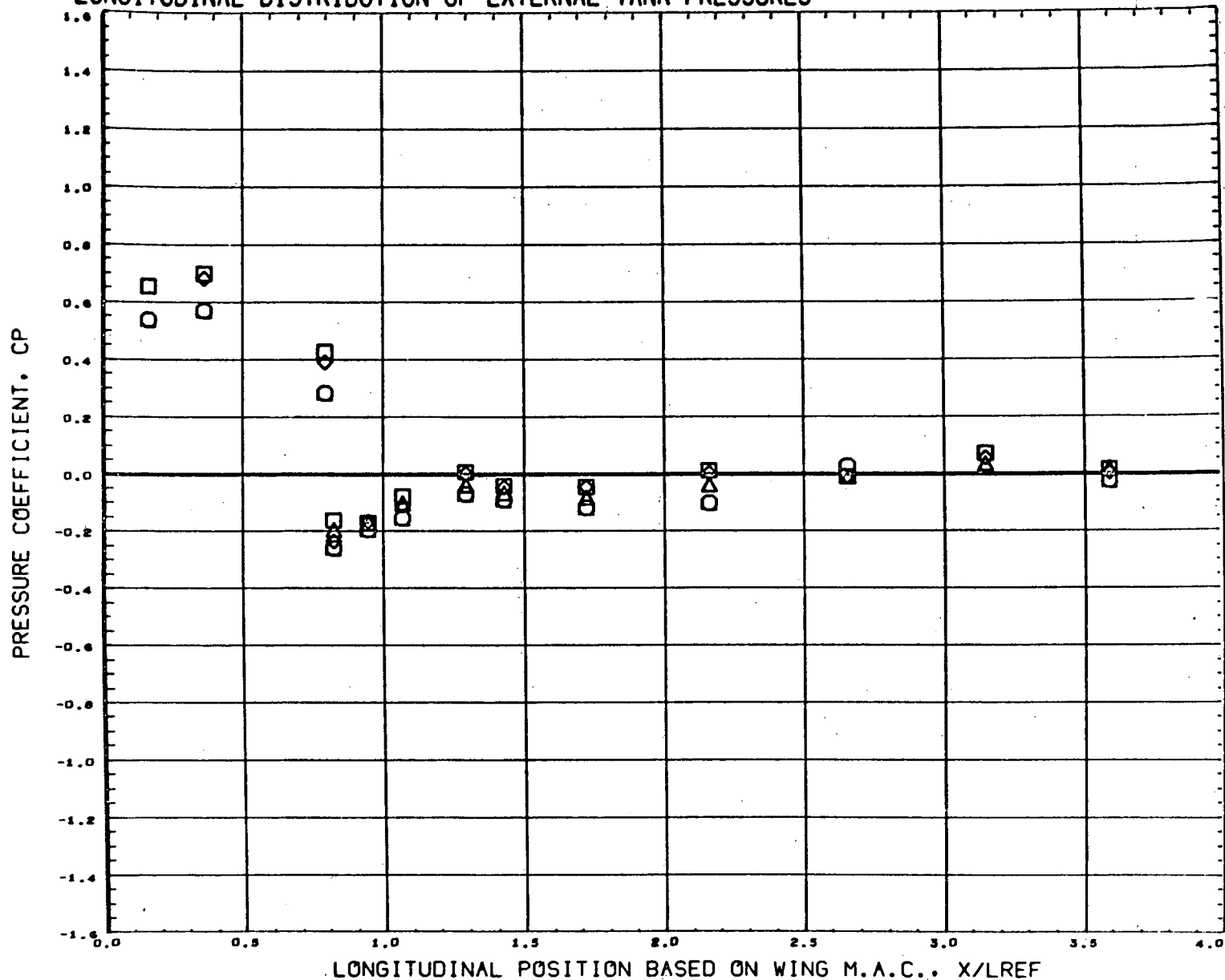


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	RHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60,000	10,000	1.460	BETA	0.000 ORBINC - 1.500
△	75,000				
◇	90,000				
□	100,000				

REFERENCE FILE

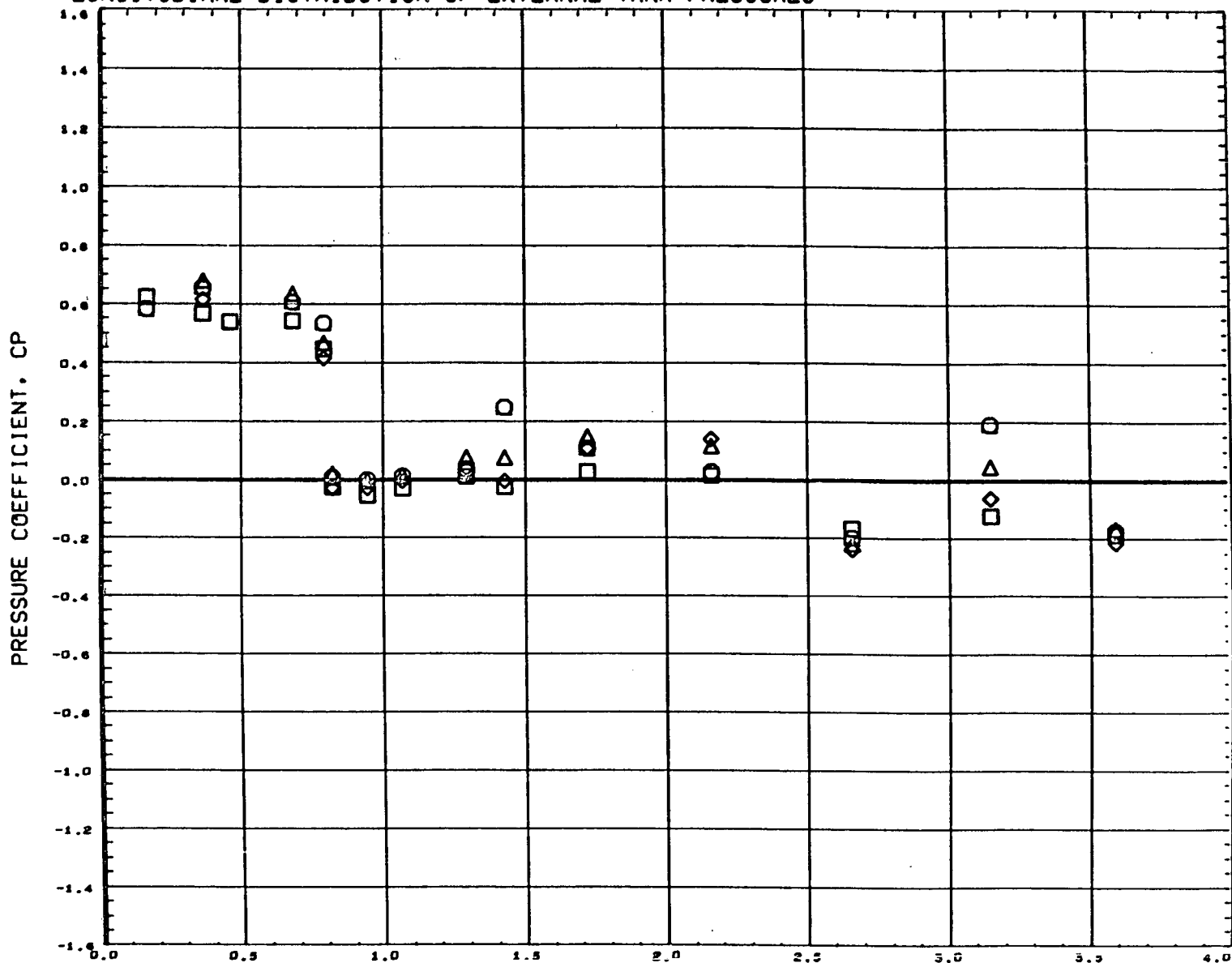
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126,000	10.000	1.460	0.000	ORBINC - 1.500
△	144,000				
◇	162,000				
□	180,000				

REFERENCE FILE

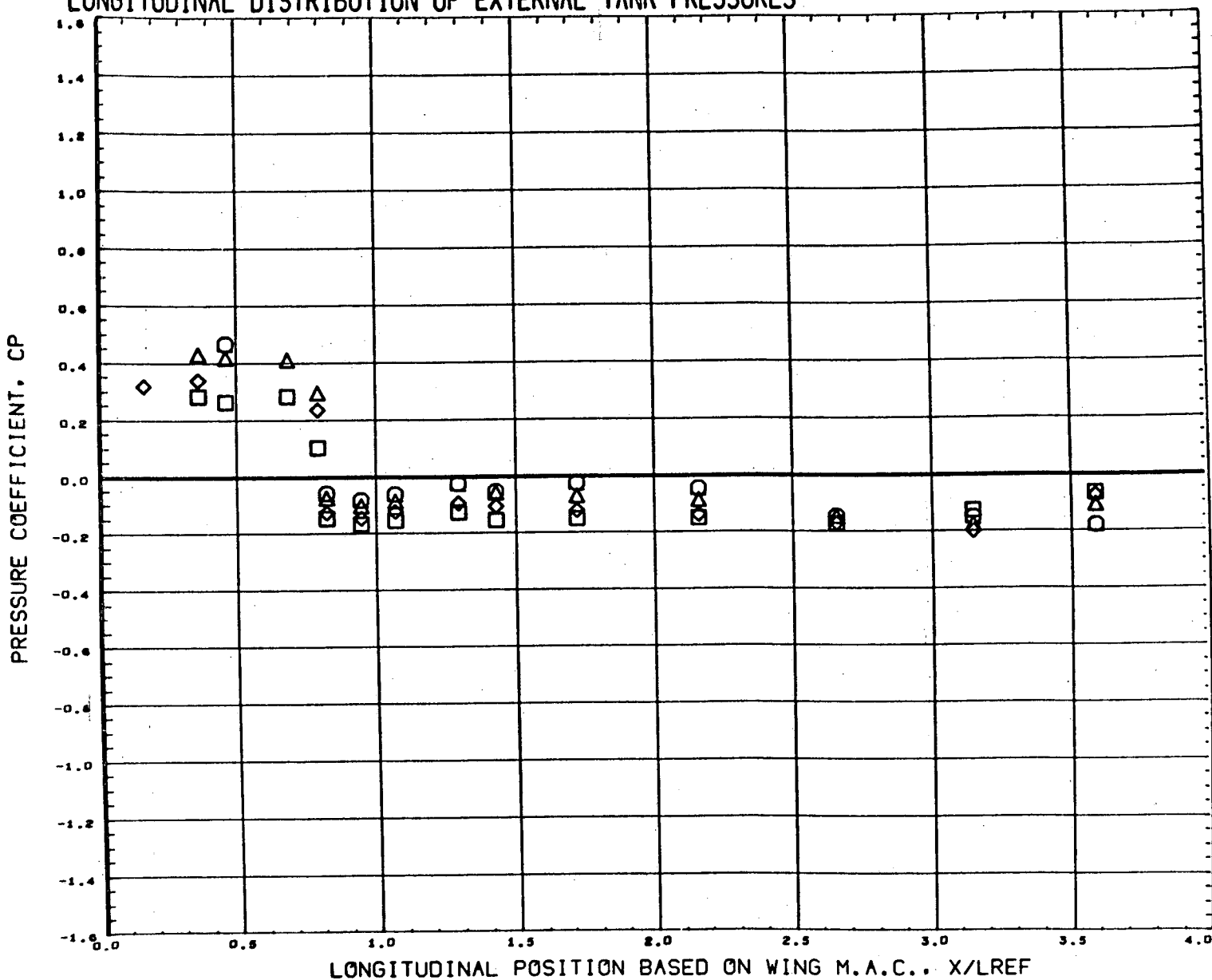
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 10.000	1.960	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



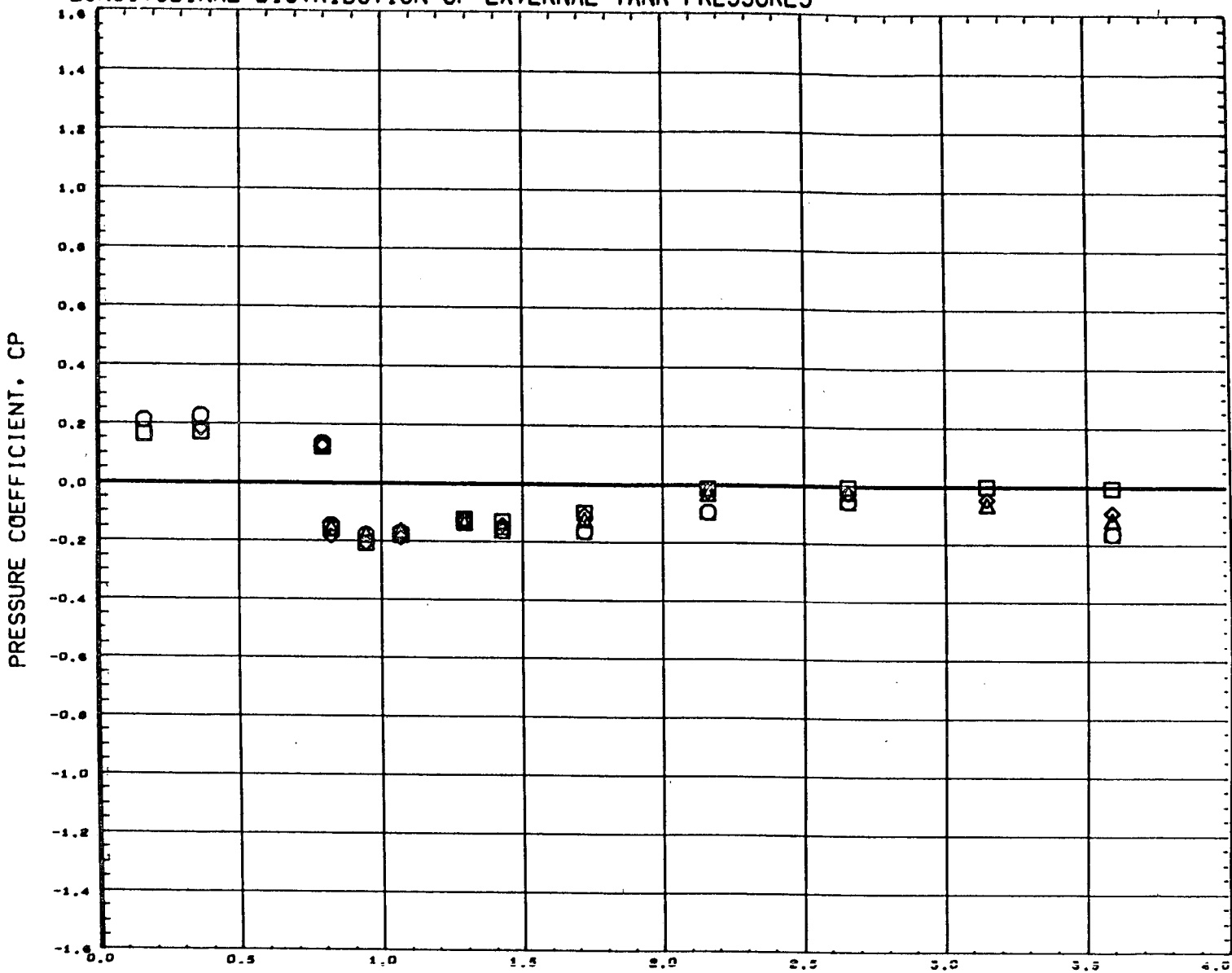
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	60.000	10.000	1.960	0.000	ORBINC - 1.500
△	75.000				
◇	90.000				
□	100.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 107

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

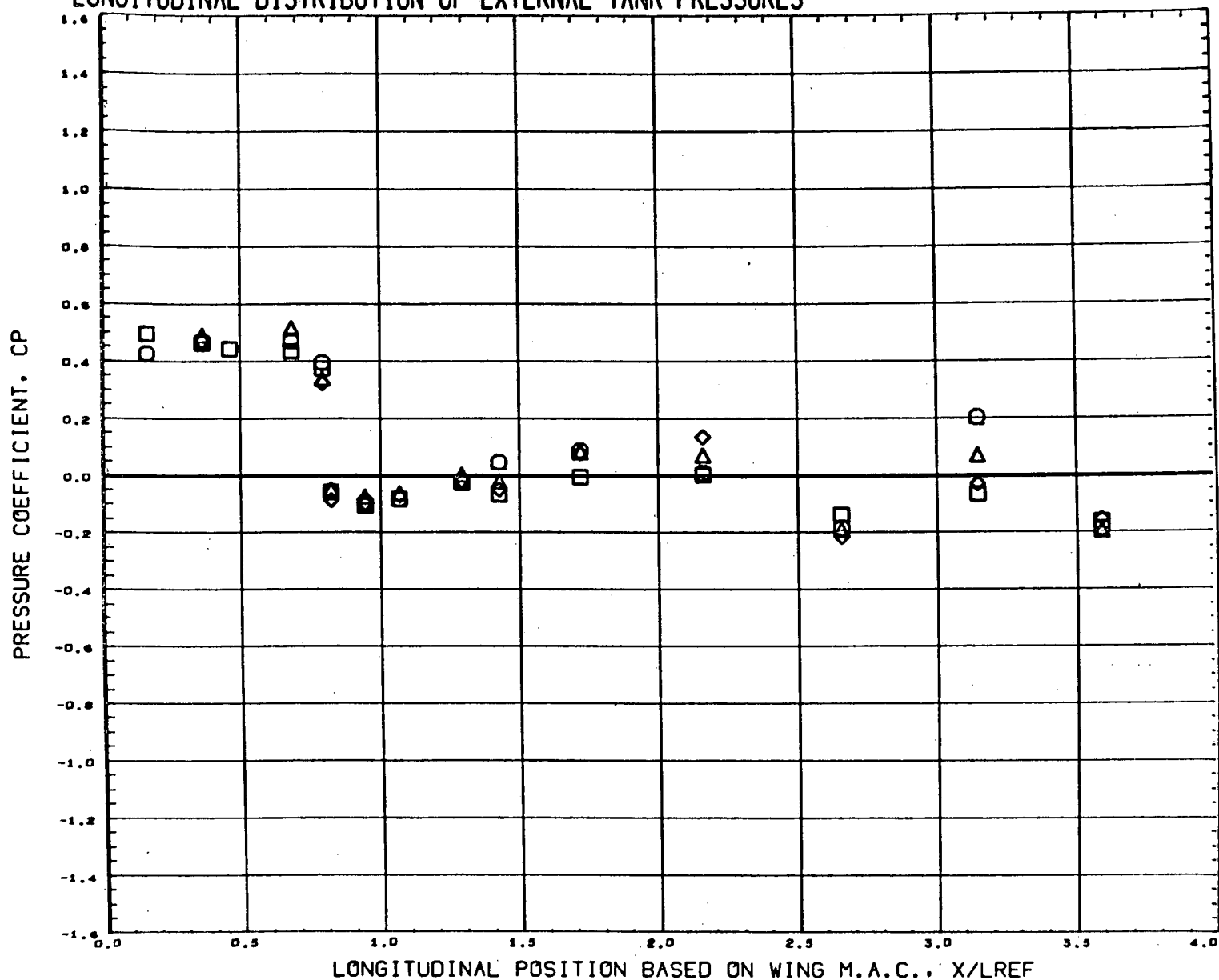


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	- 10.000	1.960	0.000	ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

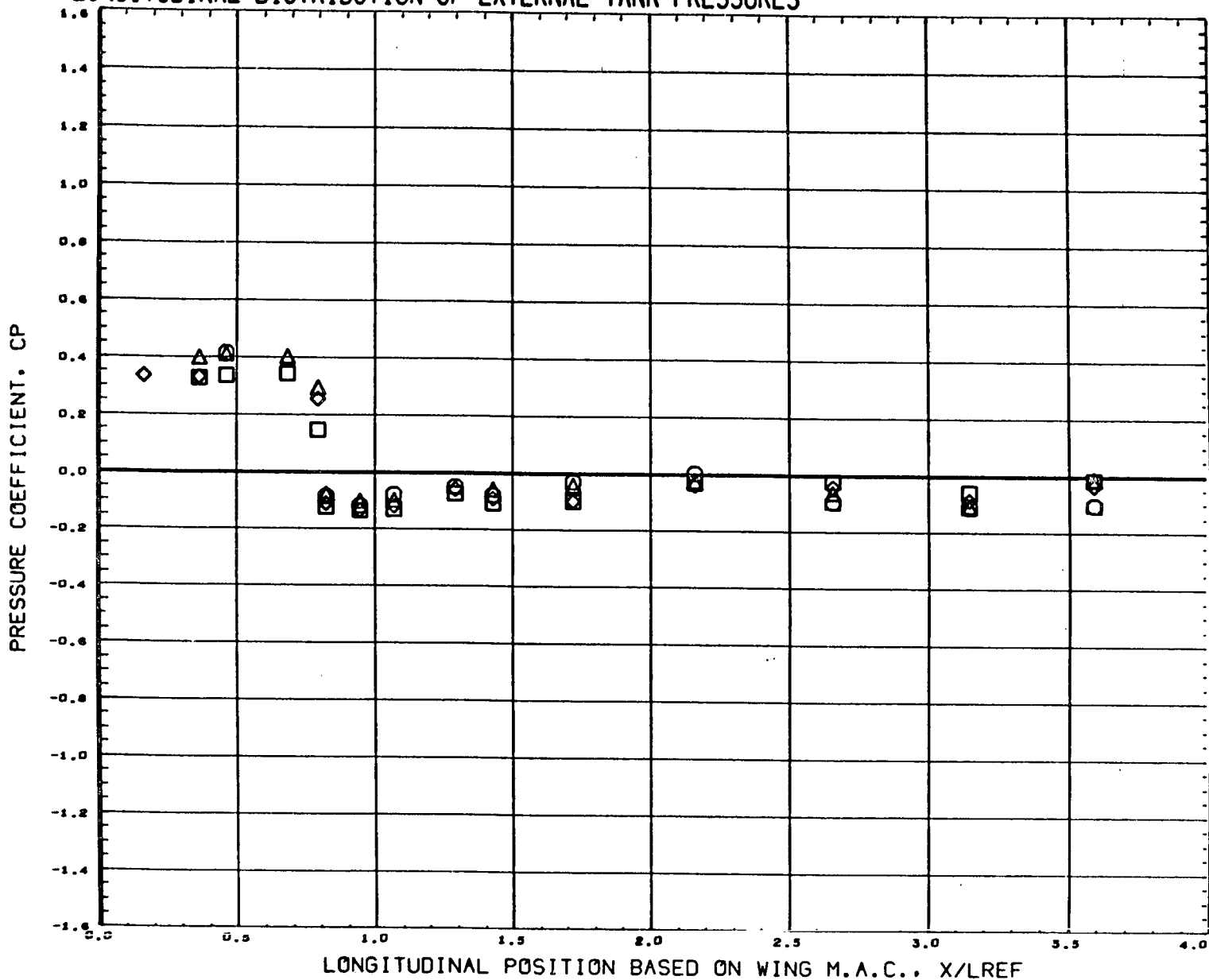
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	- 4.000	1.960		0.000 ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

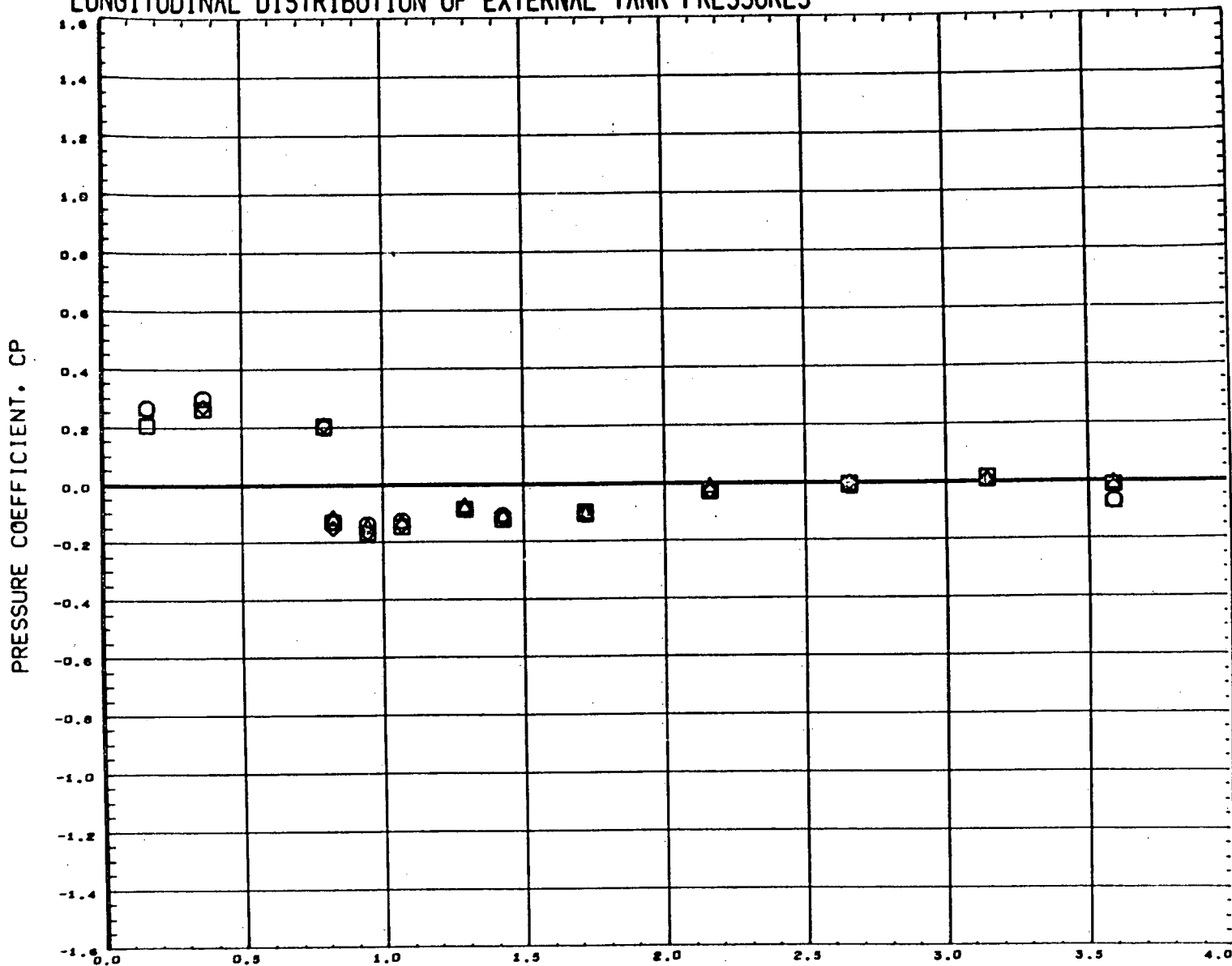
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES
○	60.000	4.000	1.960	BETA 0.000 ORBINC - 1.500
△	75.000			
◇	90.000			
□	100.000			

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

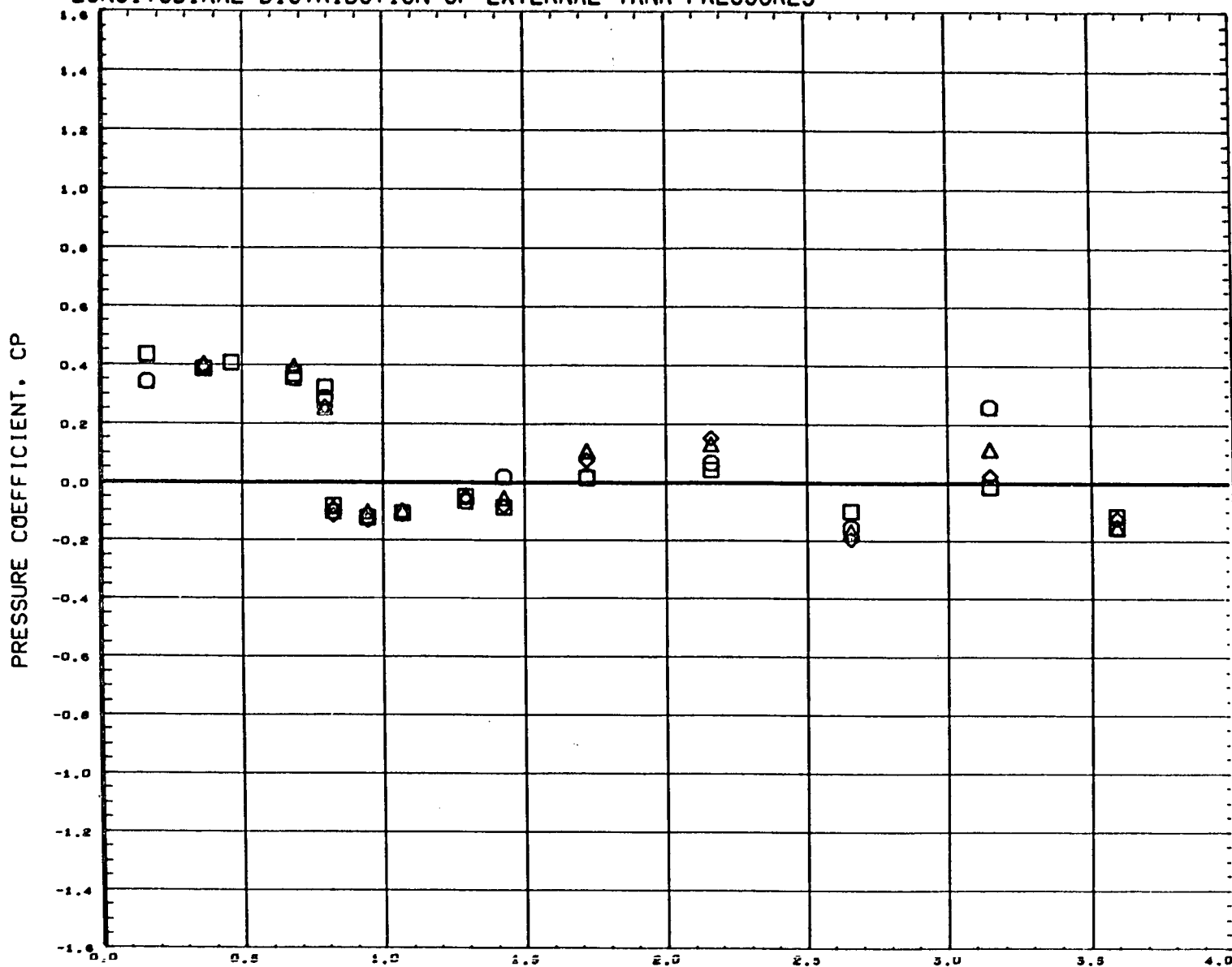
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126,000	4.000	1.960	0.000	ORBINC - 1.500
△	144,000				
◇	162,000				
□	180,000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 111

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

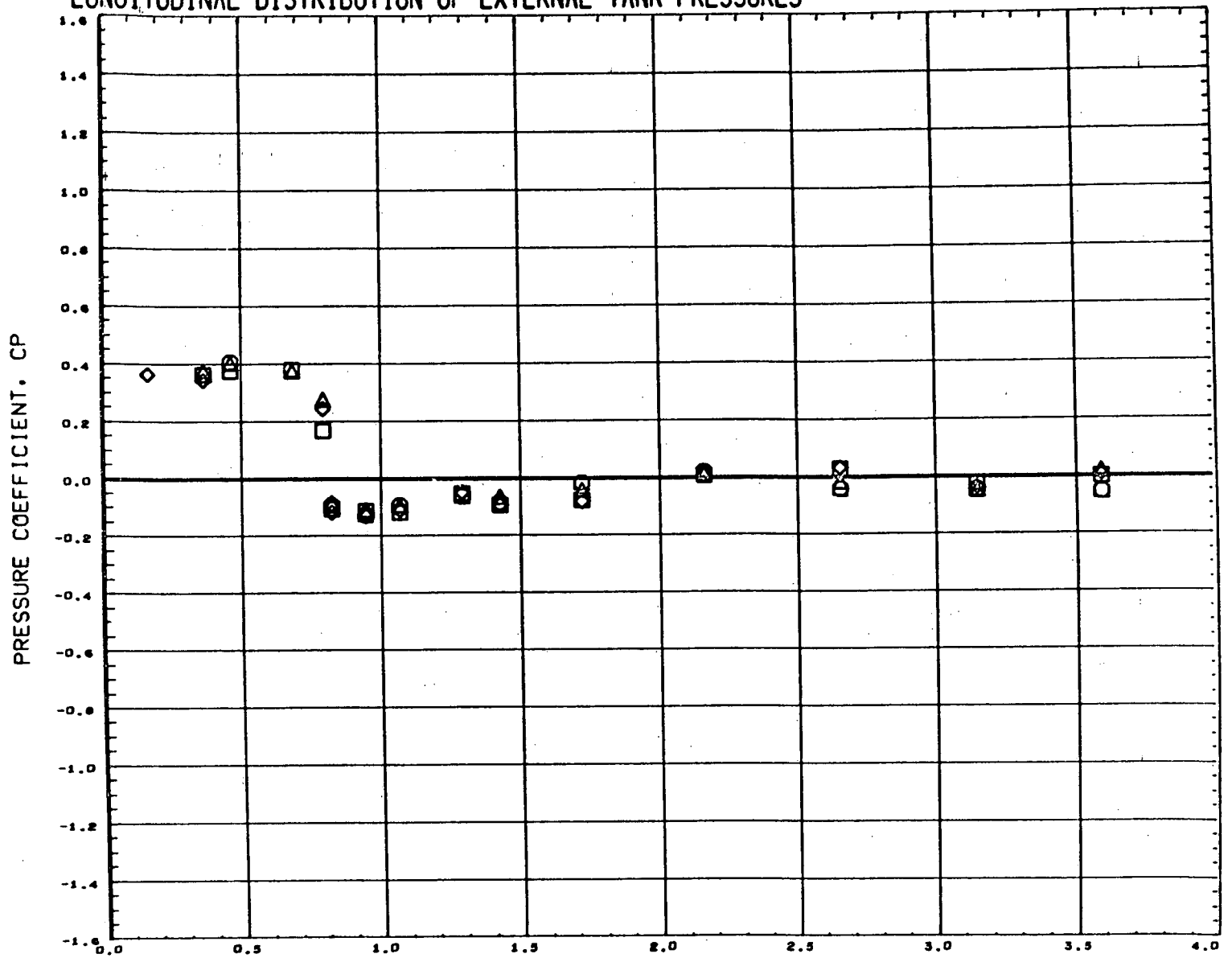


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	0.000	1.960	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

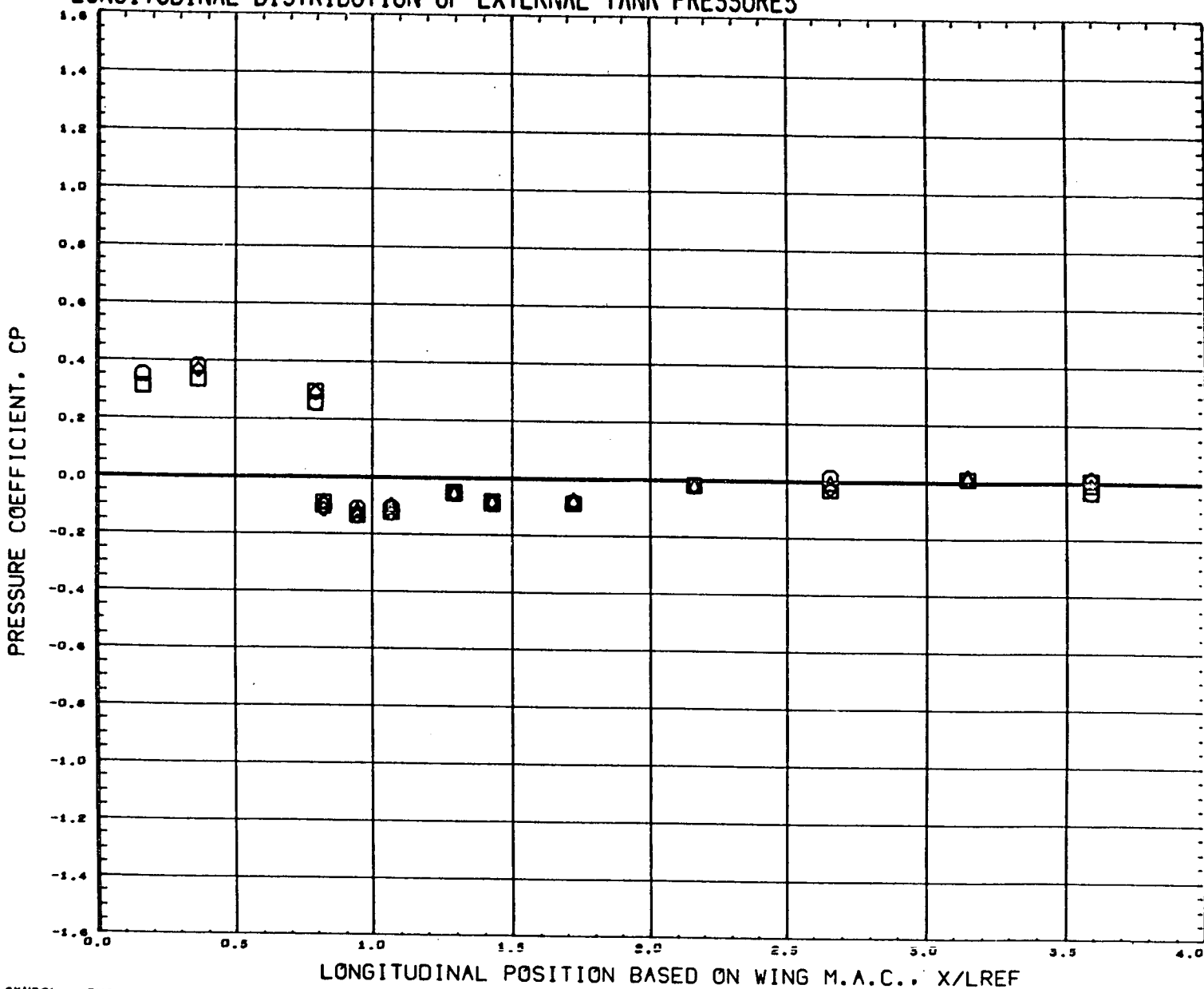
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	0.000	1.960	BETA	0.000	ORBINC = 1.500
△	75.000					
◇	90.000					
□	108.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

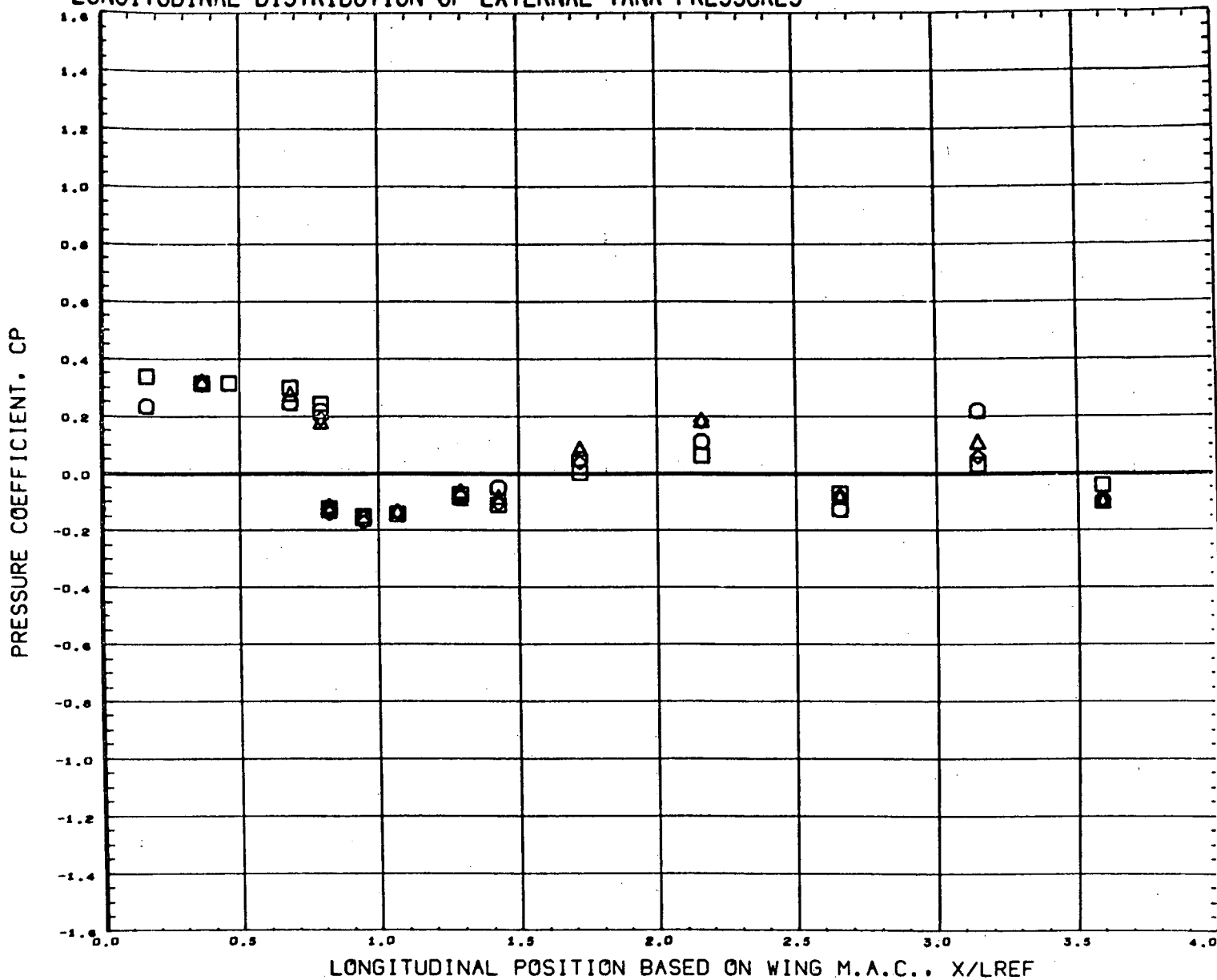


SYMBOL PHI ALPHA MACH
 ○ 126.000 0.000 1.960
 △ 144.000
 ◇ 162.000
 □ 180.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500

REFERENCE FILE

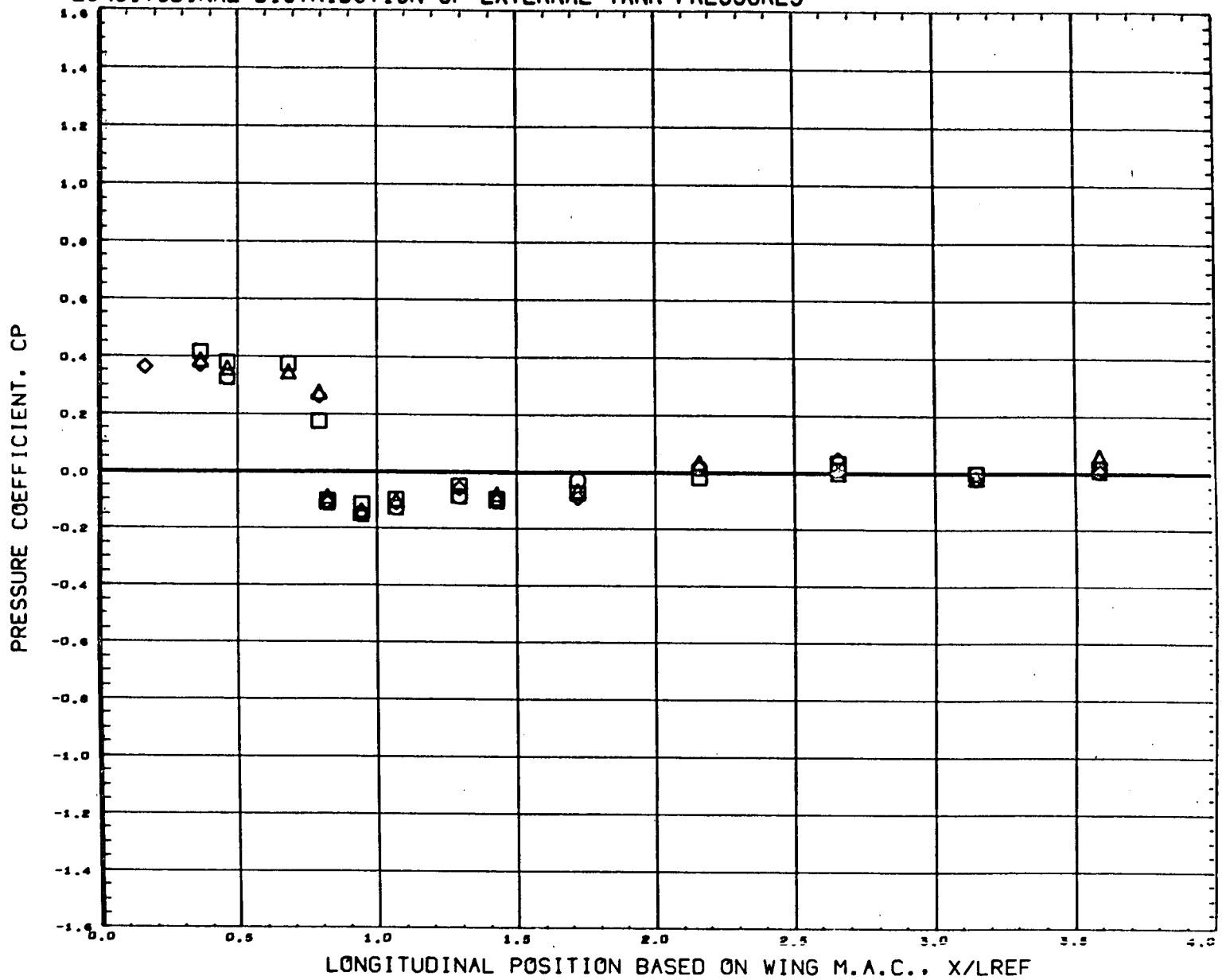
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
◇	60.000	4.000	1.960	BETA	0.000 ORBINC - 1.500
△	75.000				
○	90.000				
□	106.000				

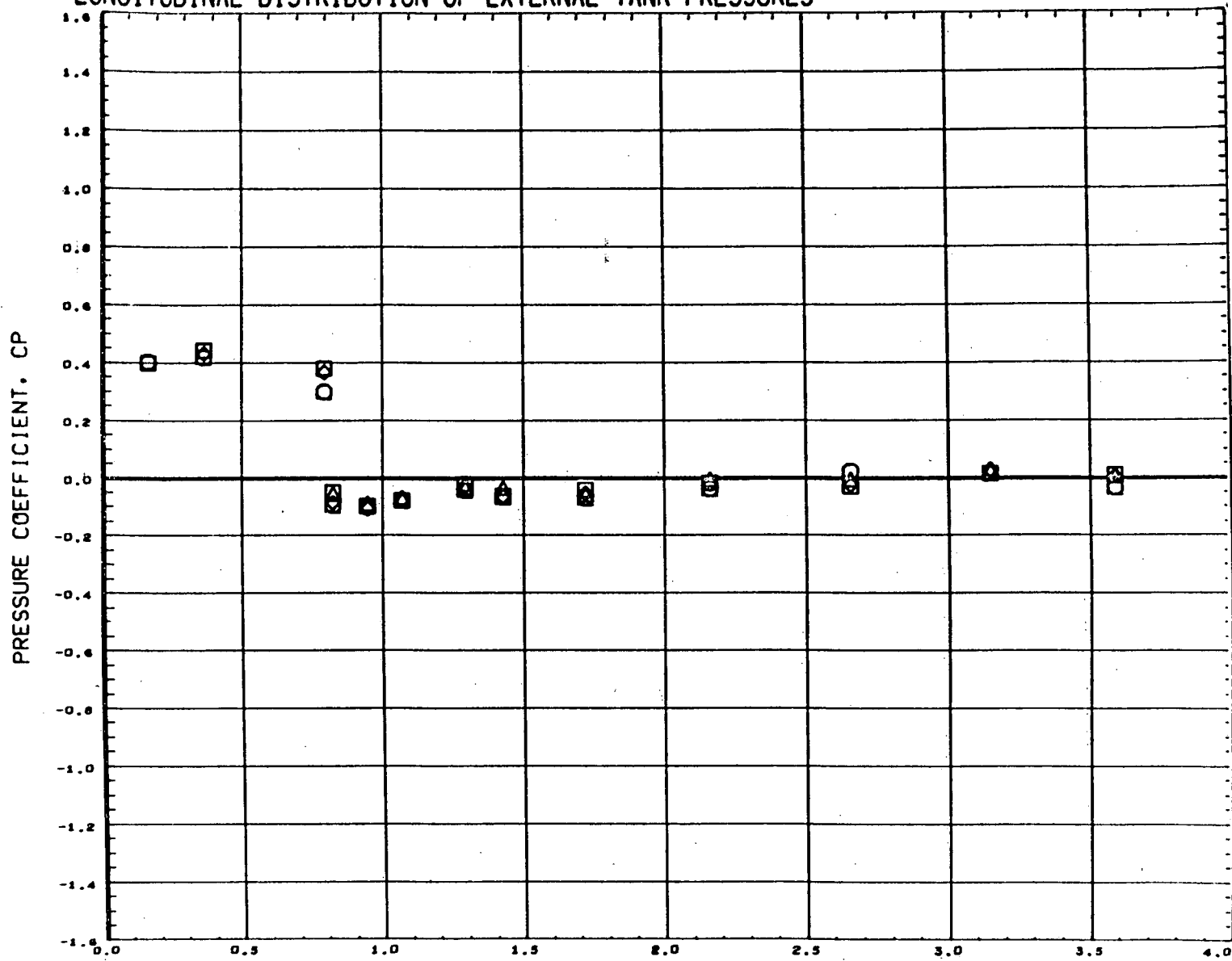
REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 116

E

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



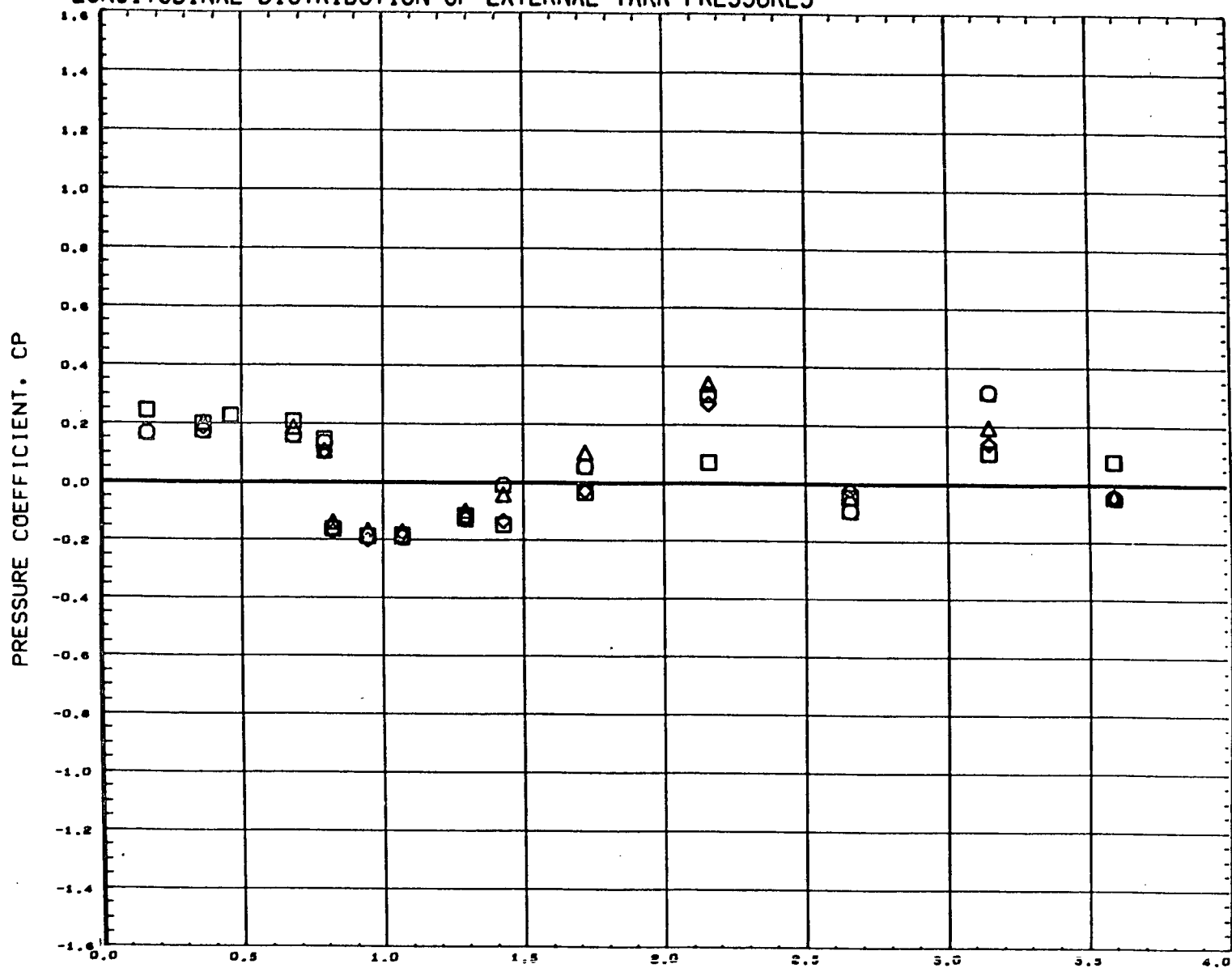
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	126.000	4.000	1.960		0.000 ORBINC - 1.500
△	144.000				
◇	162.000				
□	180.000				

REFERENCE FILE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101 (R70600)

PAGE 117

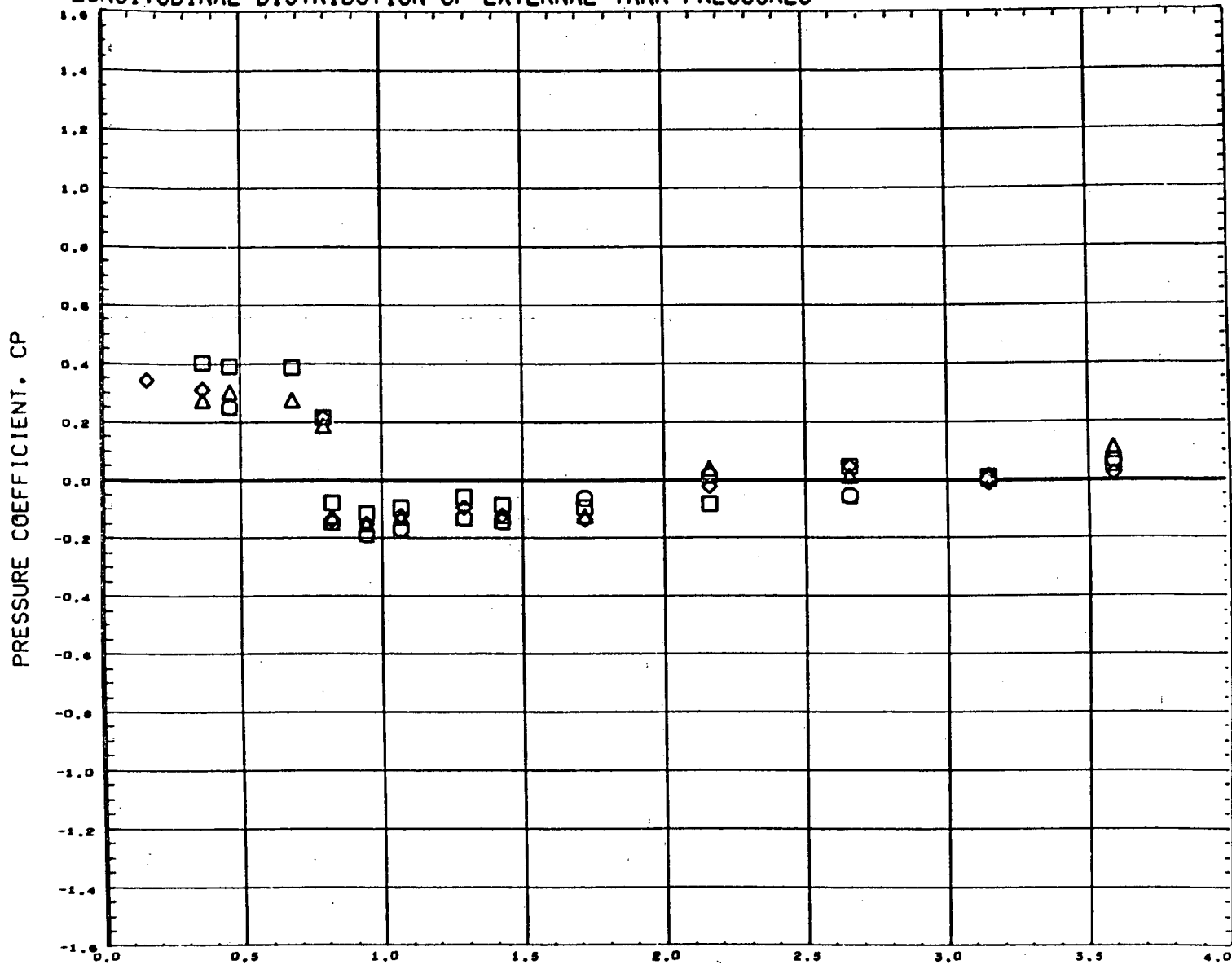
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	0.000	10.000	1.960	0.000	ORBINC - 1.500
△	15.000				
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

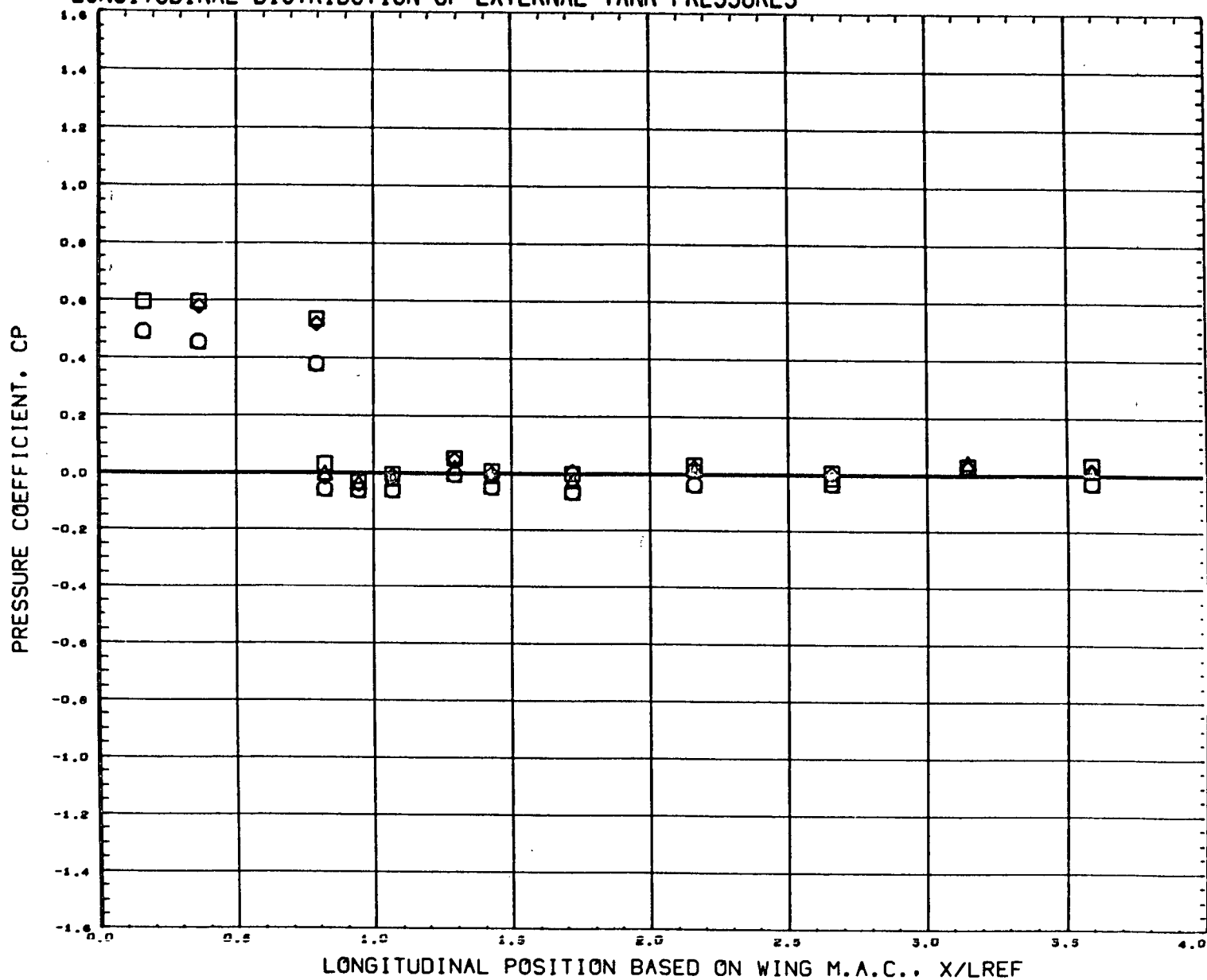


SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.960
△	75.000		
◇	90.000		
□	108.000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

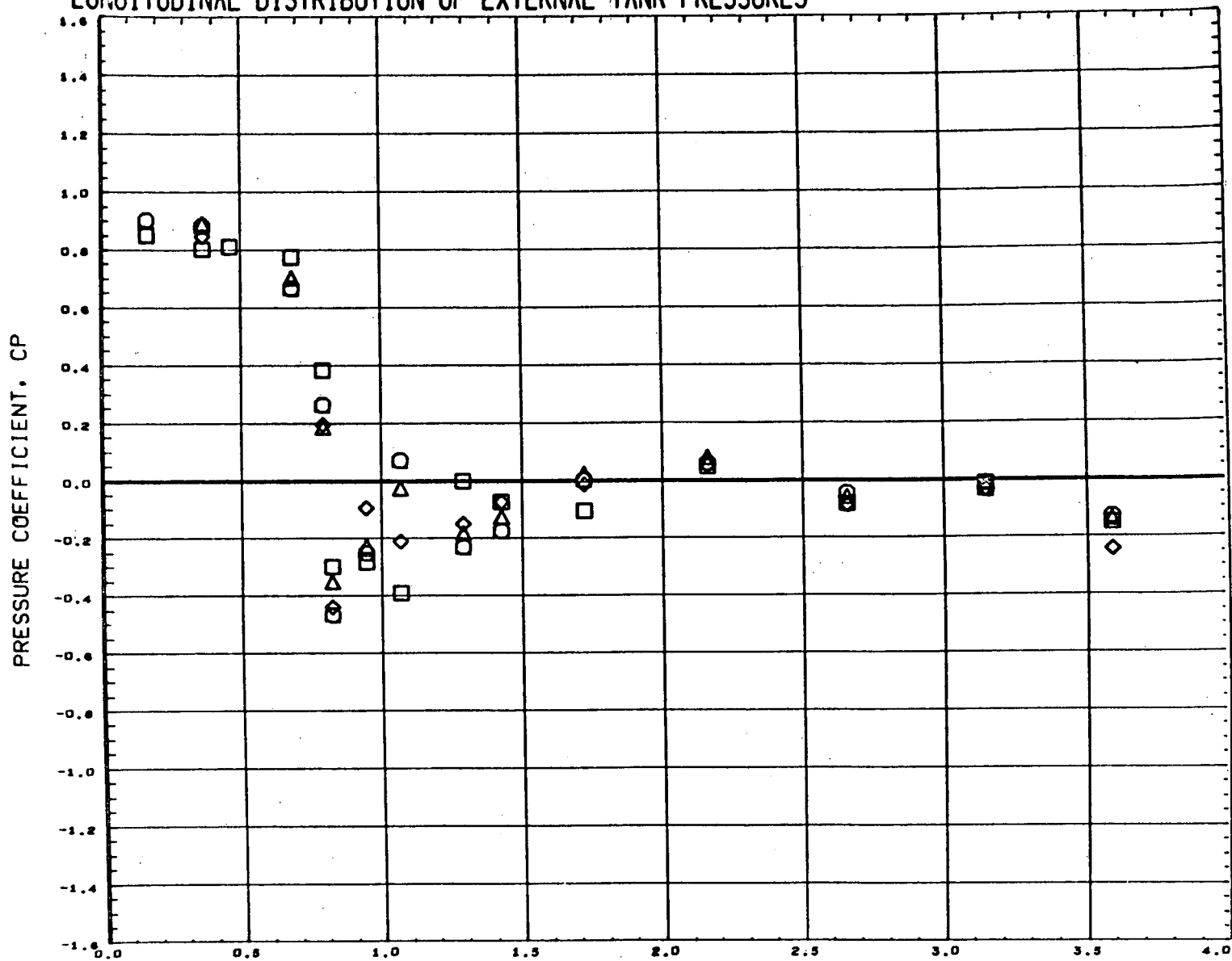


SYMBOL	PHI	ALPHA	MACH
○	126.000	10.000	1.960
△	144.000		
◇	162.000		
□	180.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



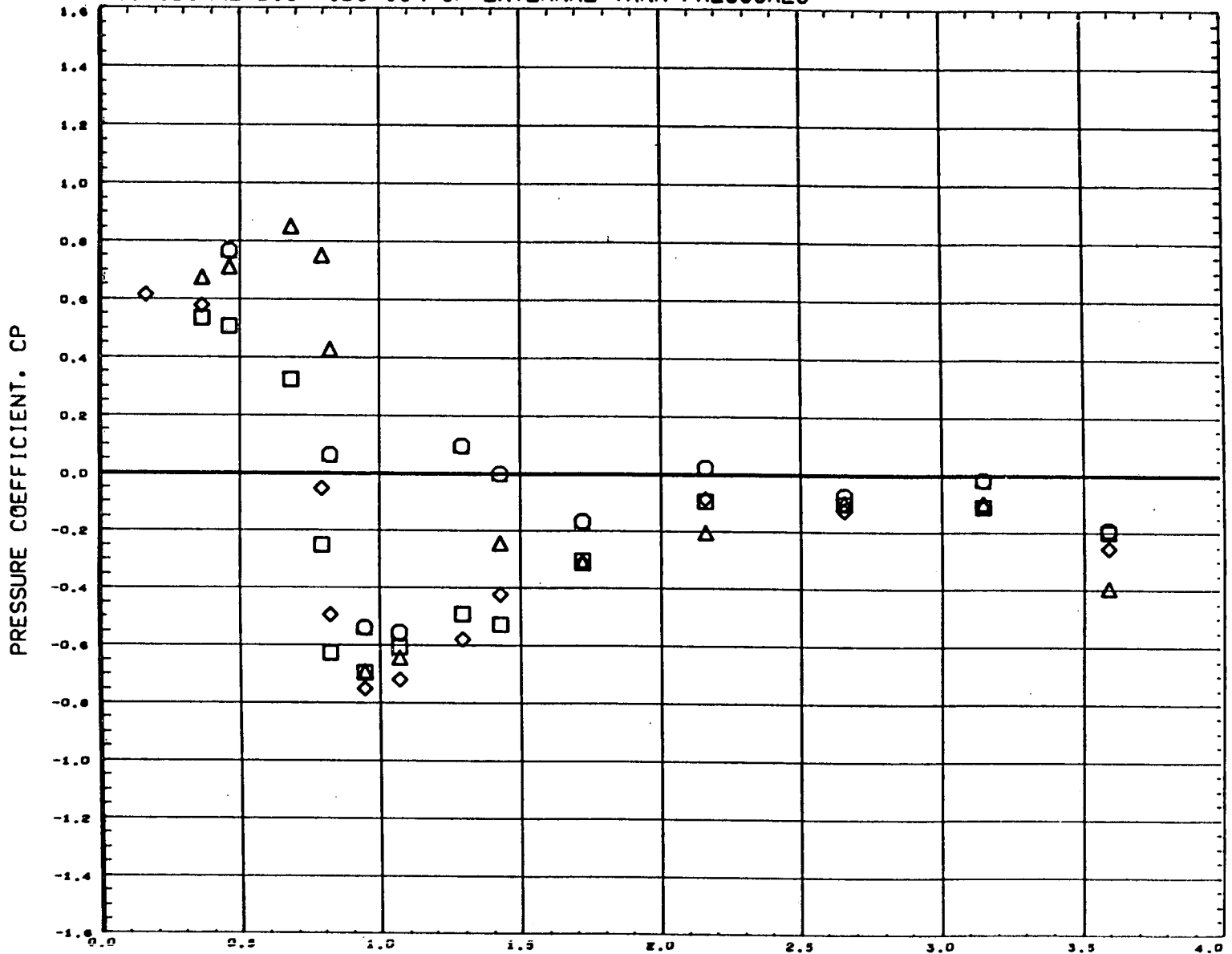
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	- 10.000	1.200	BETA	0.000	SRBCAP 0.025
△	15.000					
◇	30.000					
□	45.000					

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED. T1S1 (R705TK)

PAGE 121

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

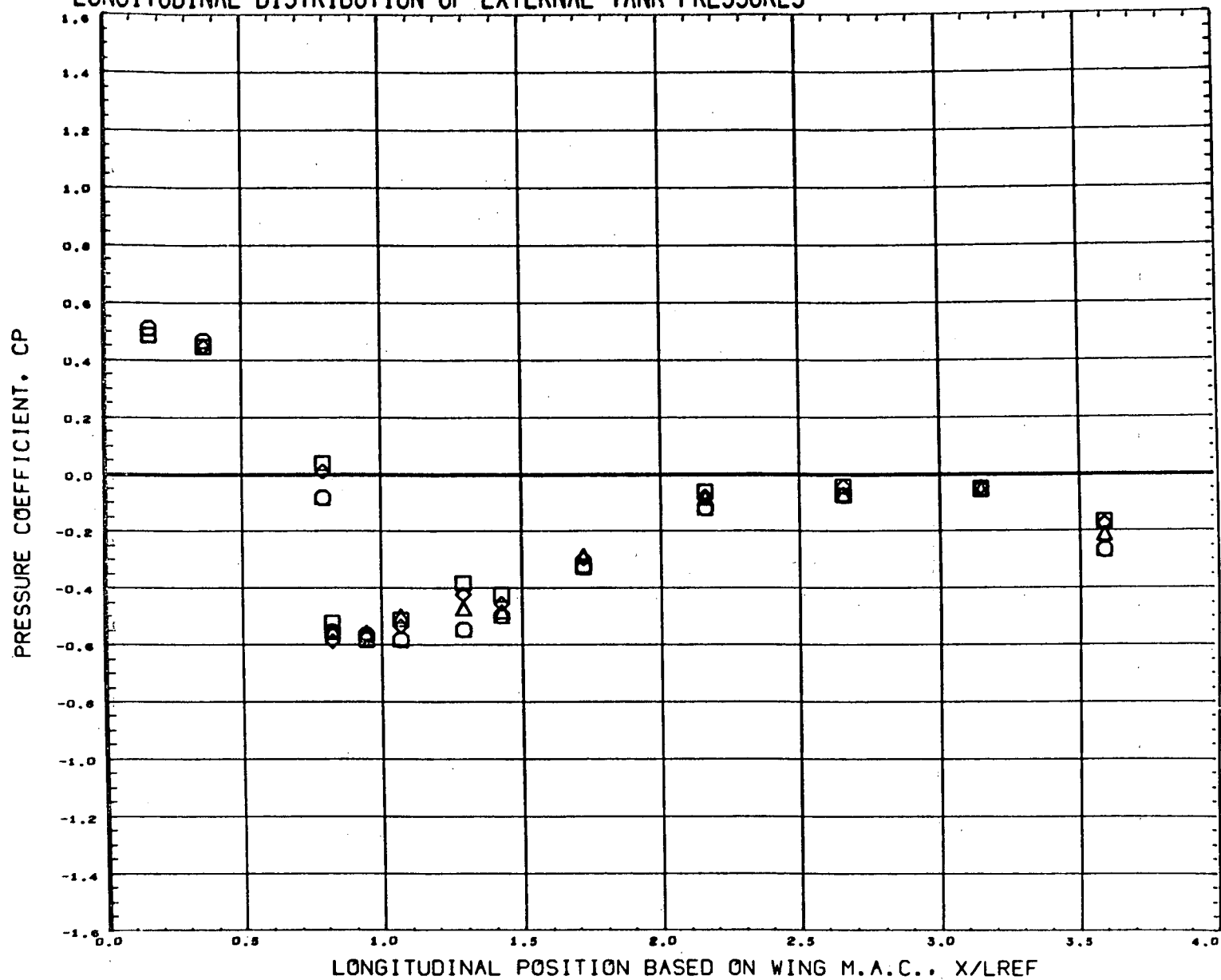
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	60,000	- 10,000	1.200		0,000	SRBGAP	0,025
△	75,000						
◇	90,000						
□	100,000						

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 122

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



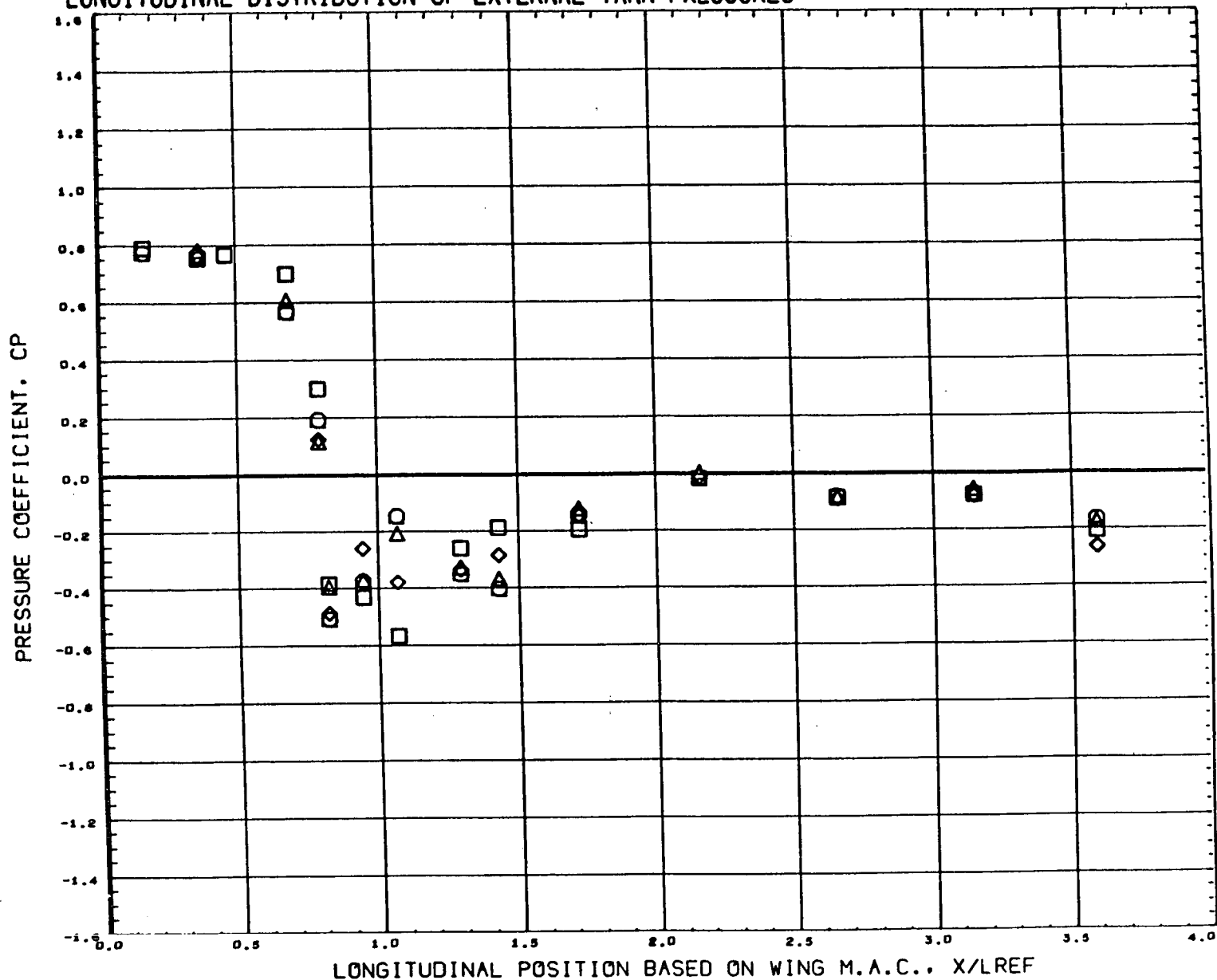
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126.000	- 10.000	1.200	BETA	0.000	SRBGAP 0.025
△	144.000					
◇	162.000					
□	180.000					

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED. T1S1 (R705TK)

PAGE 123

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



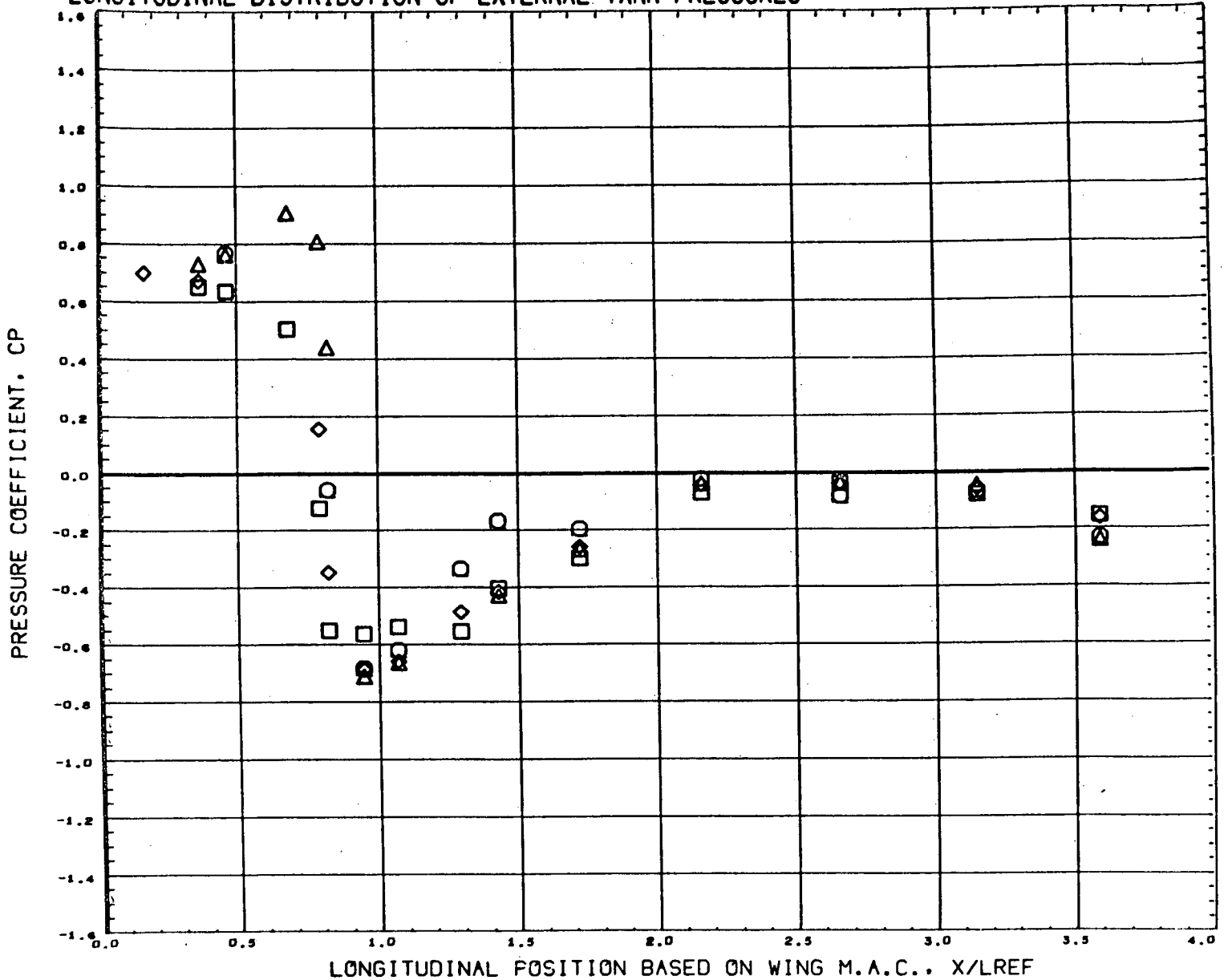
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	0.000	- 4.000	1.200		0.000	SRBGAP	0.025
△	15.000						
◇	30.000						
□	45.000						

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 124

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 60.000 4.000 1.200
 △ 75.000
 ◇ 90.000
 □ 106.000

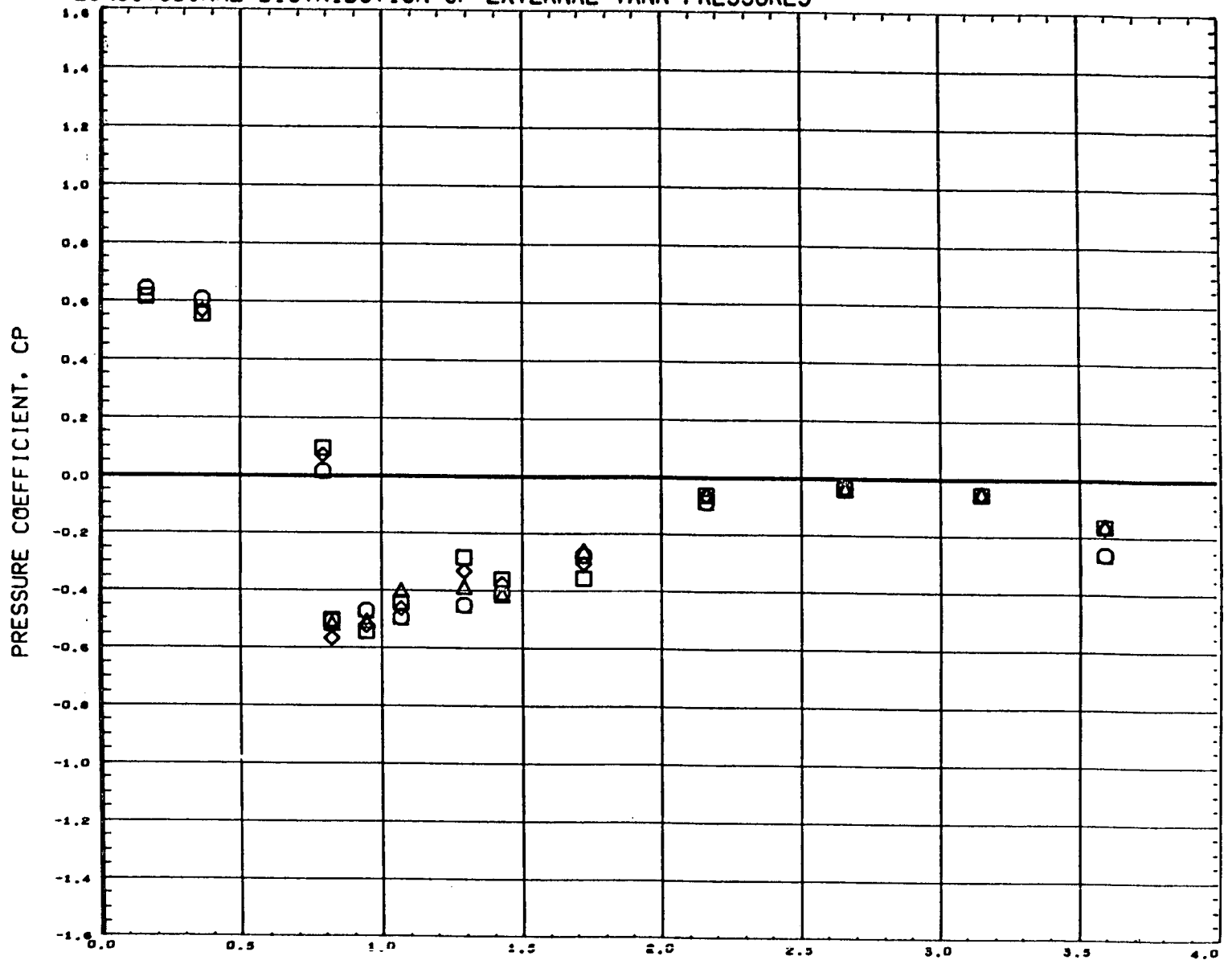
PARAMETRIC VALUES
 BETA 0.000 SRBGAP 0.025

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 125

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	- 4.000	1.200
△	144,000		
◇	162,000		
□	180,000		

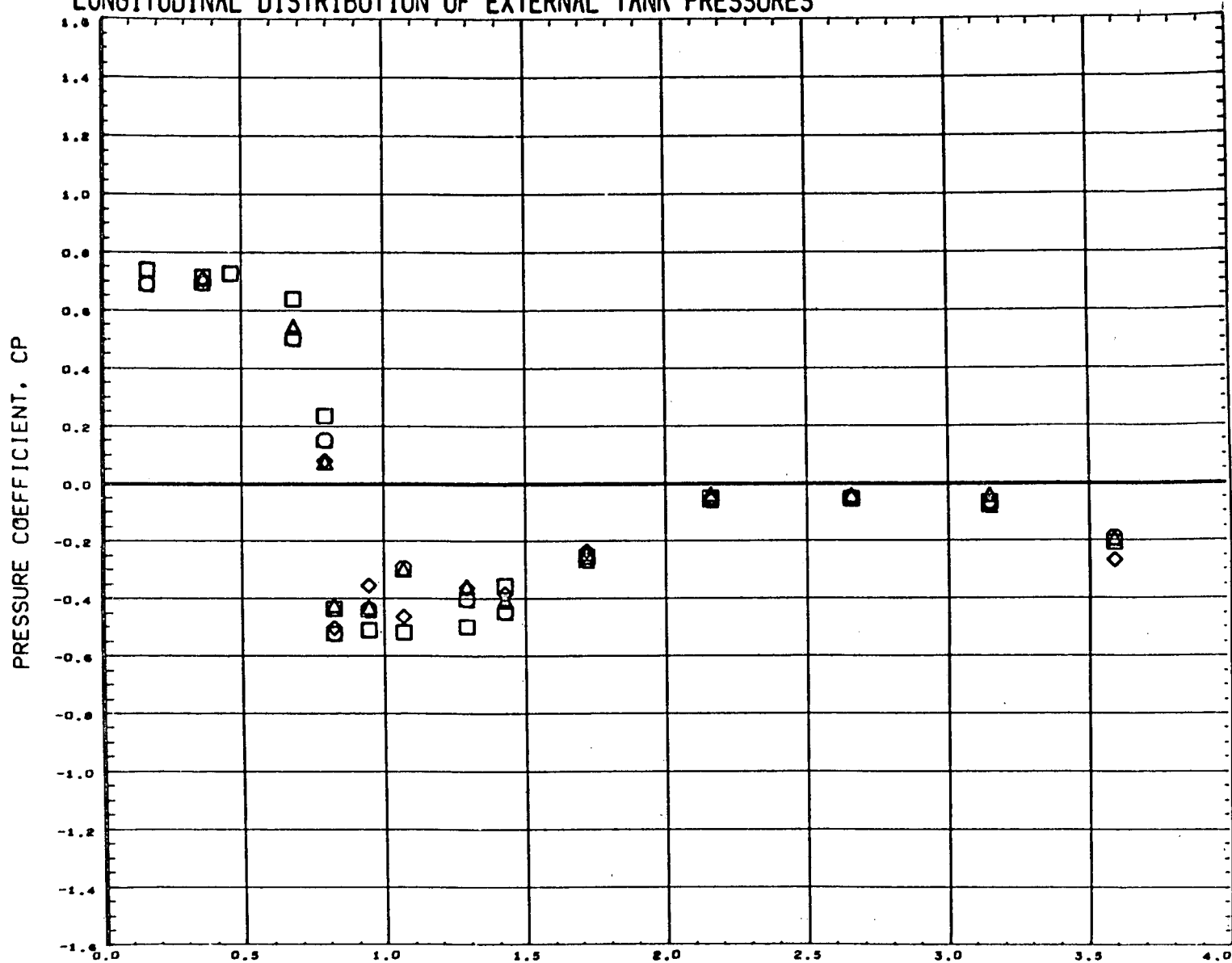
PARAMETRIC VALUES		
BETA	0.000	SRBGAP 0.025

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 126

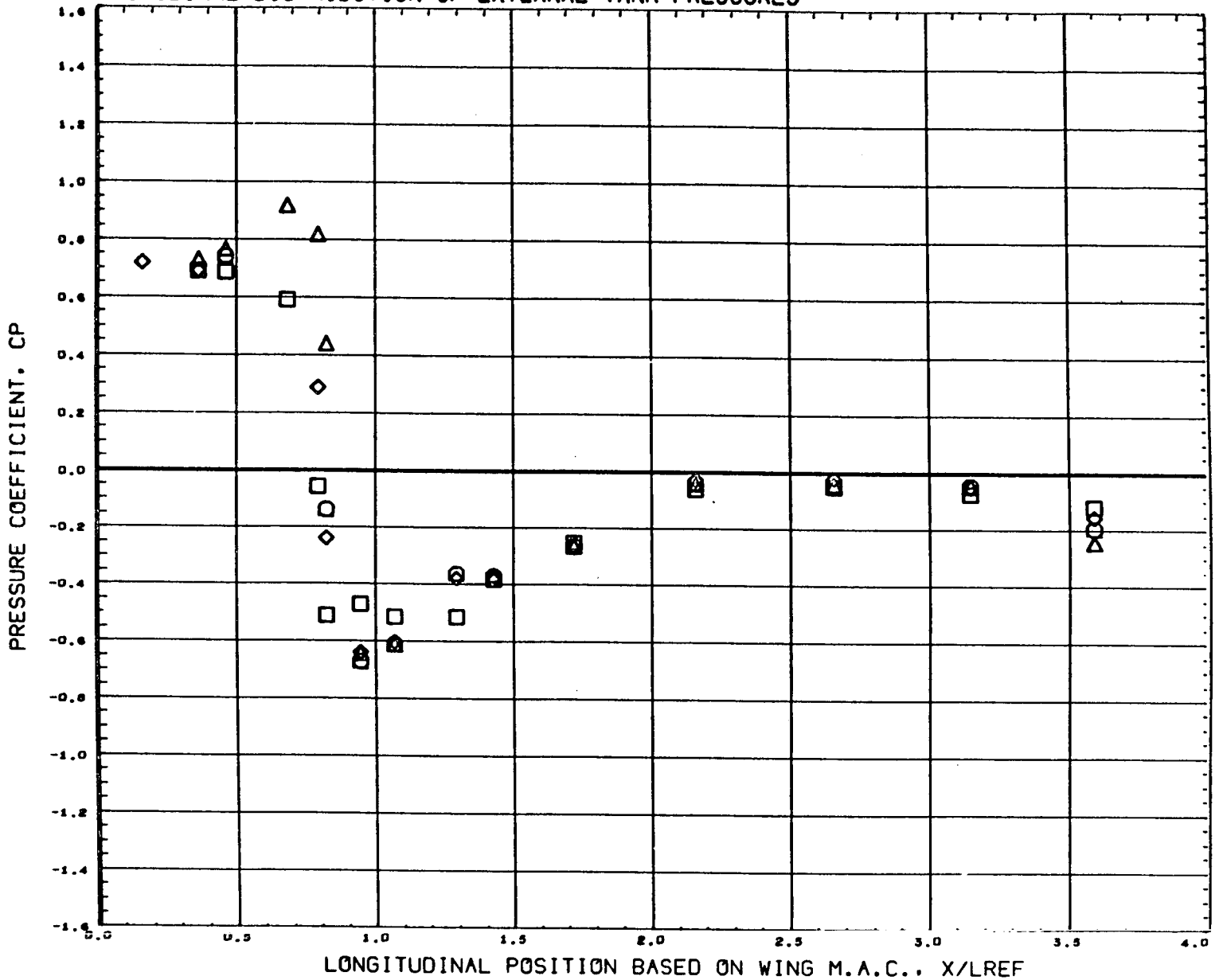
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	15.000					
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



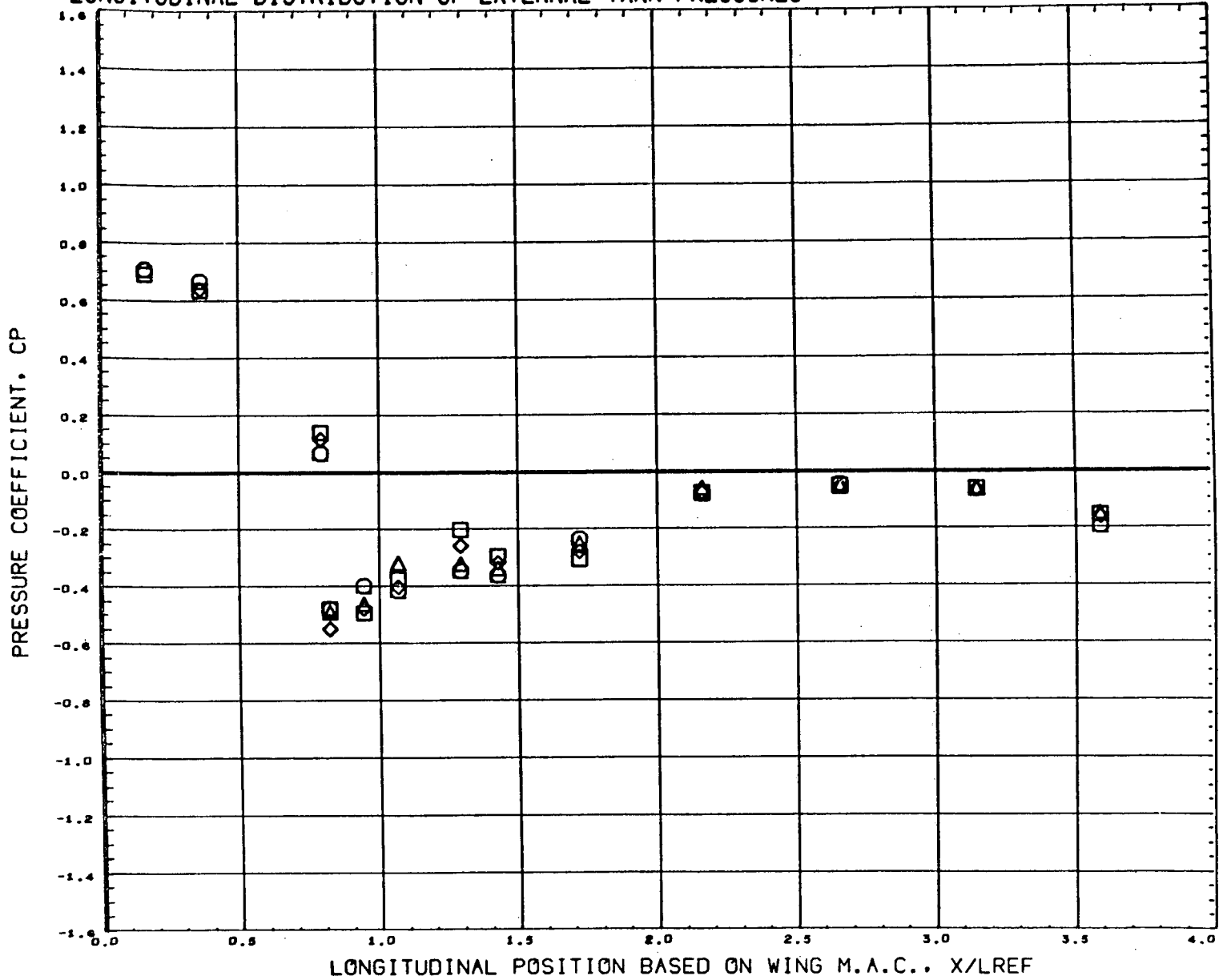
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	75.000					
◇	90.000					
□	100.000					

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 128

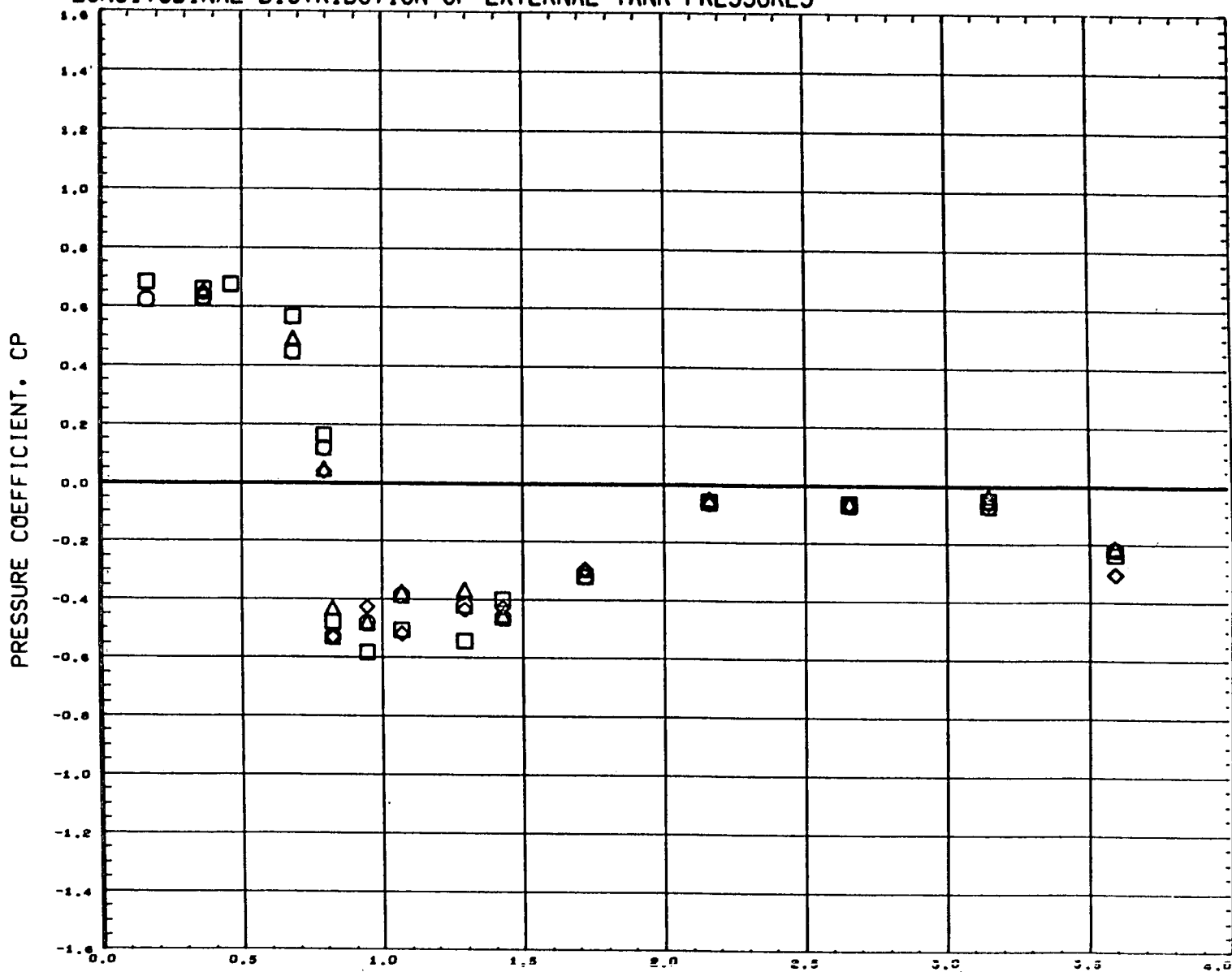
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	144.000					
◇	162.000					
□	180.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
	0.000	4.000	1.200	BETA	0.000	SRBGAP 0.025
	15.000					
	30.000					
	45.000					

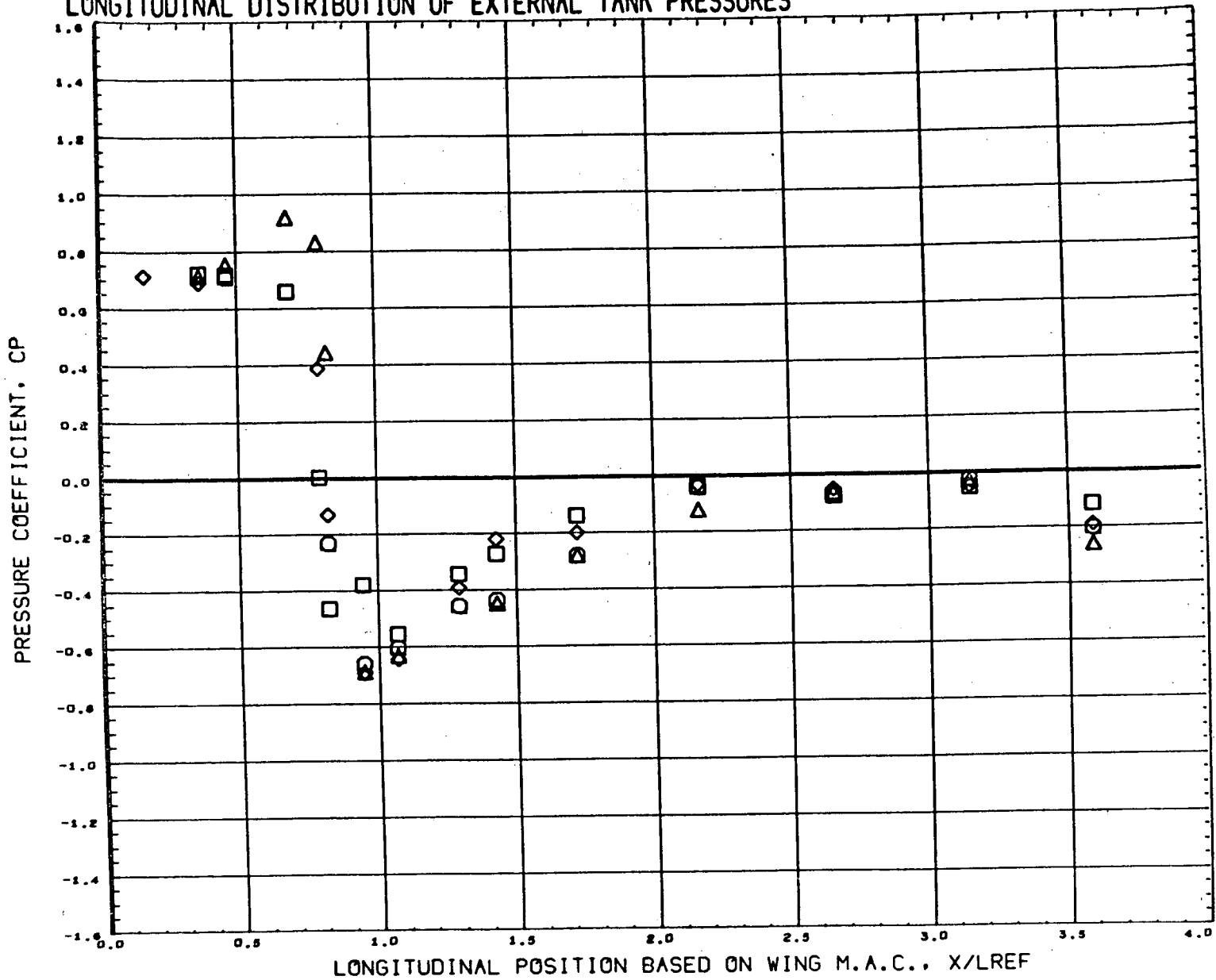
REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 130

7

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60,000	4,000	1,200
△	75,000		
◇	90,000		
□	100,000		

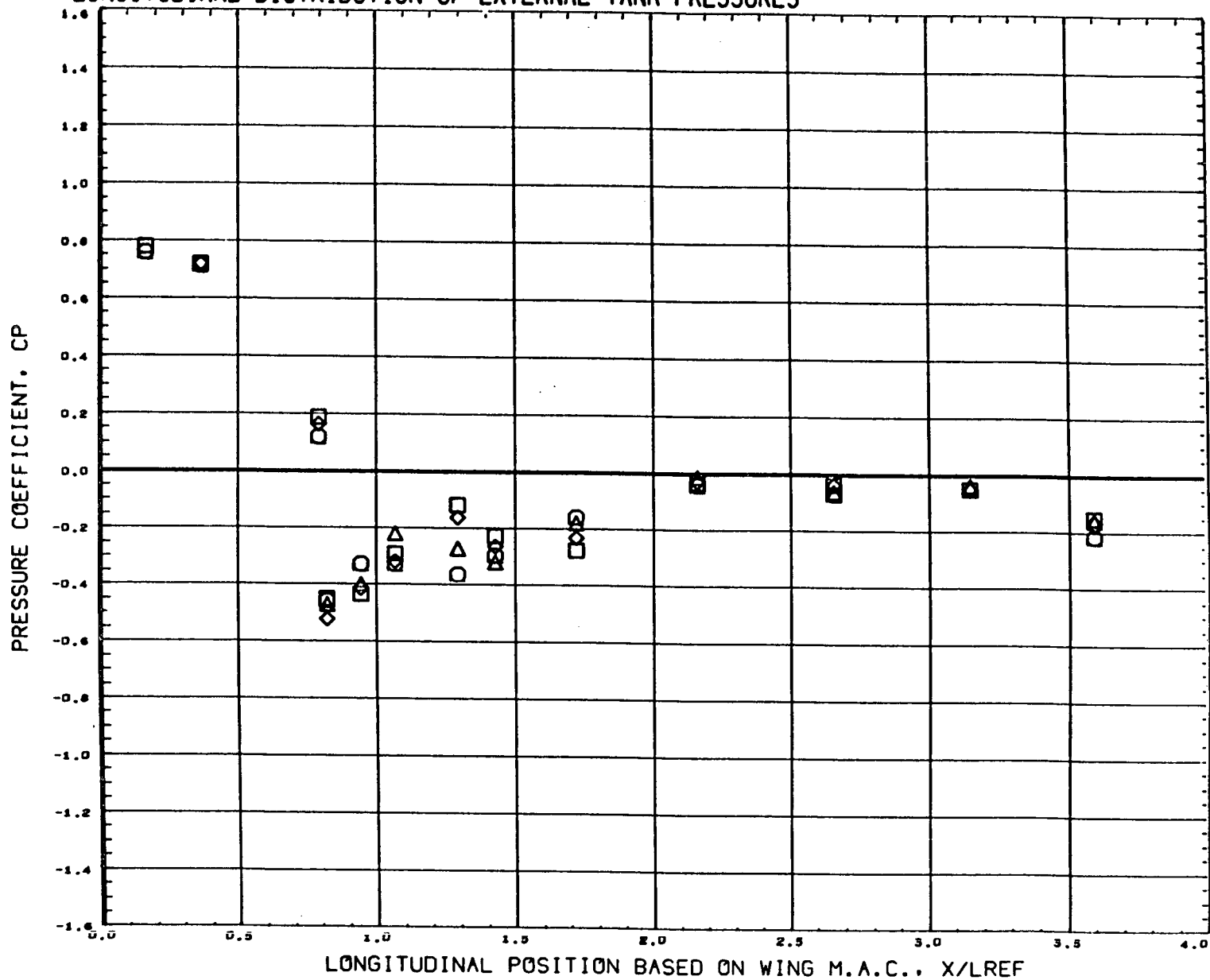
PARAMETRIC VALUES		
BETA	0,000	SRBCAP 0,025

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 131

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



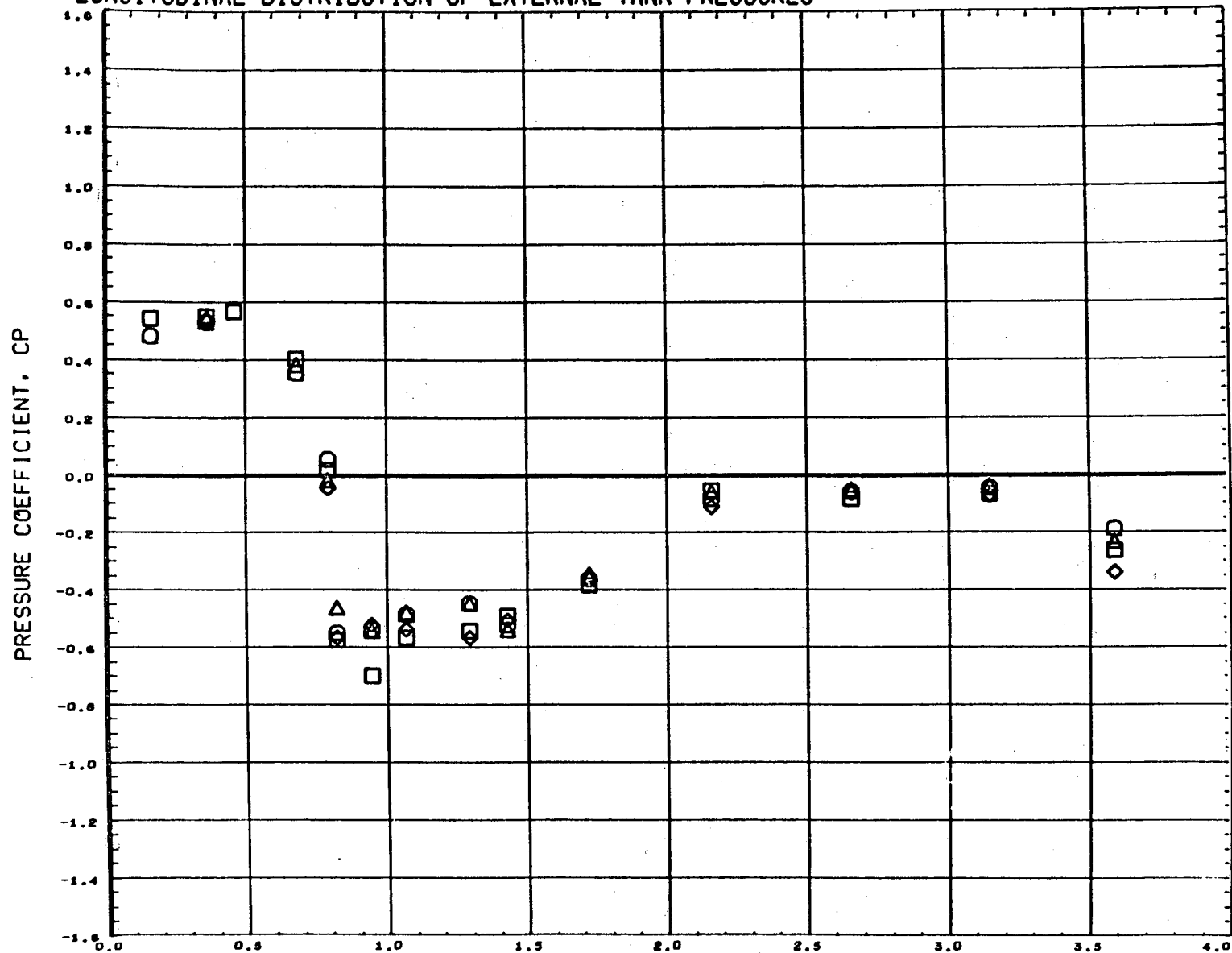
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126,000	4.000	1.200	BETA	0.000	SRBGAP 0.025
△	144,000					
◇	162,000					
□	160,000					

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED. T1S1 (R705TK)

PAGE 132

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

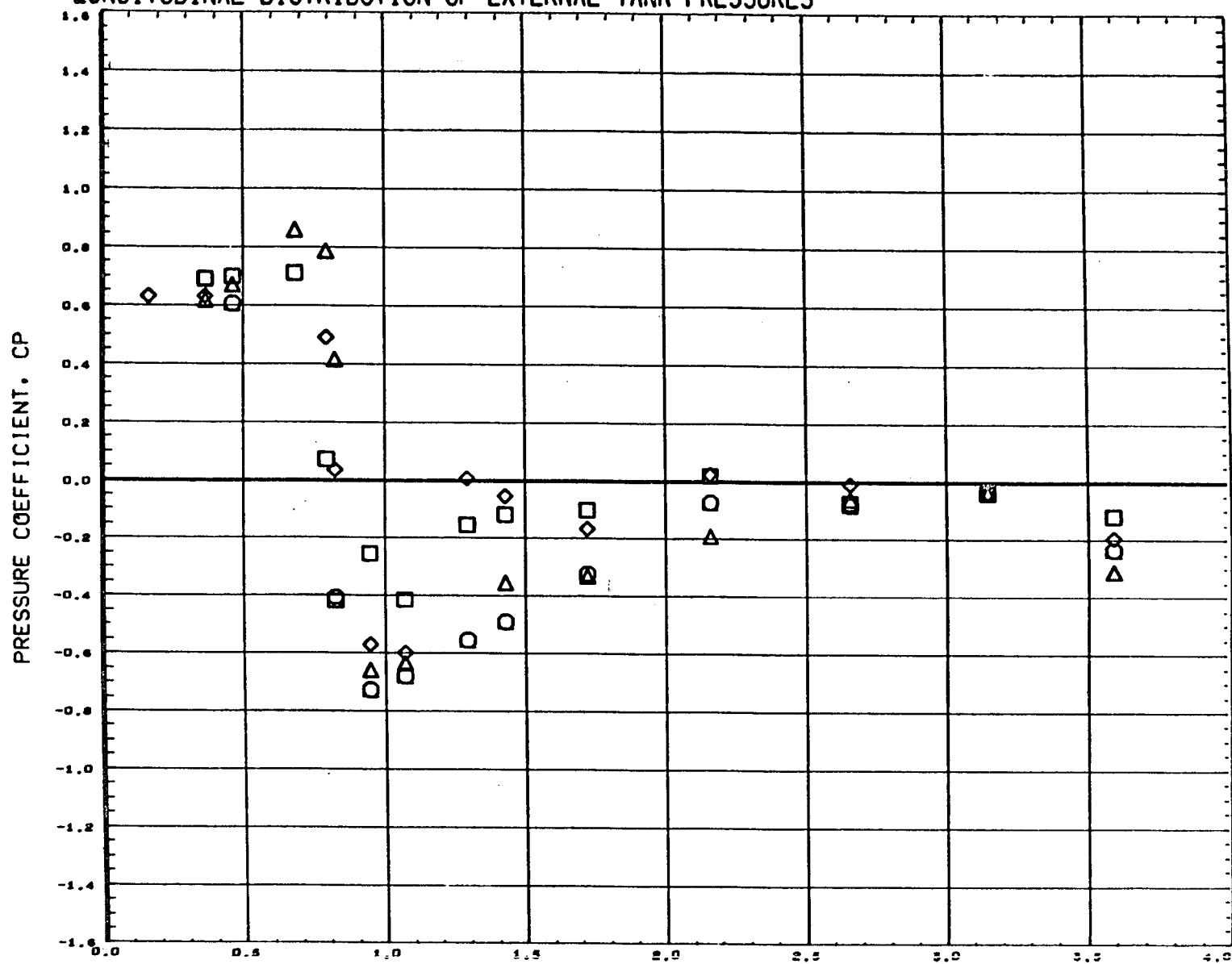


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	1.200	BETA	0.000	SRBGAP 0.025
△	15.000					
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.200
△	75.000		
◇	90.000		
□	100.000		

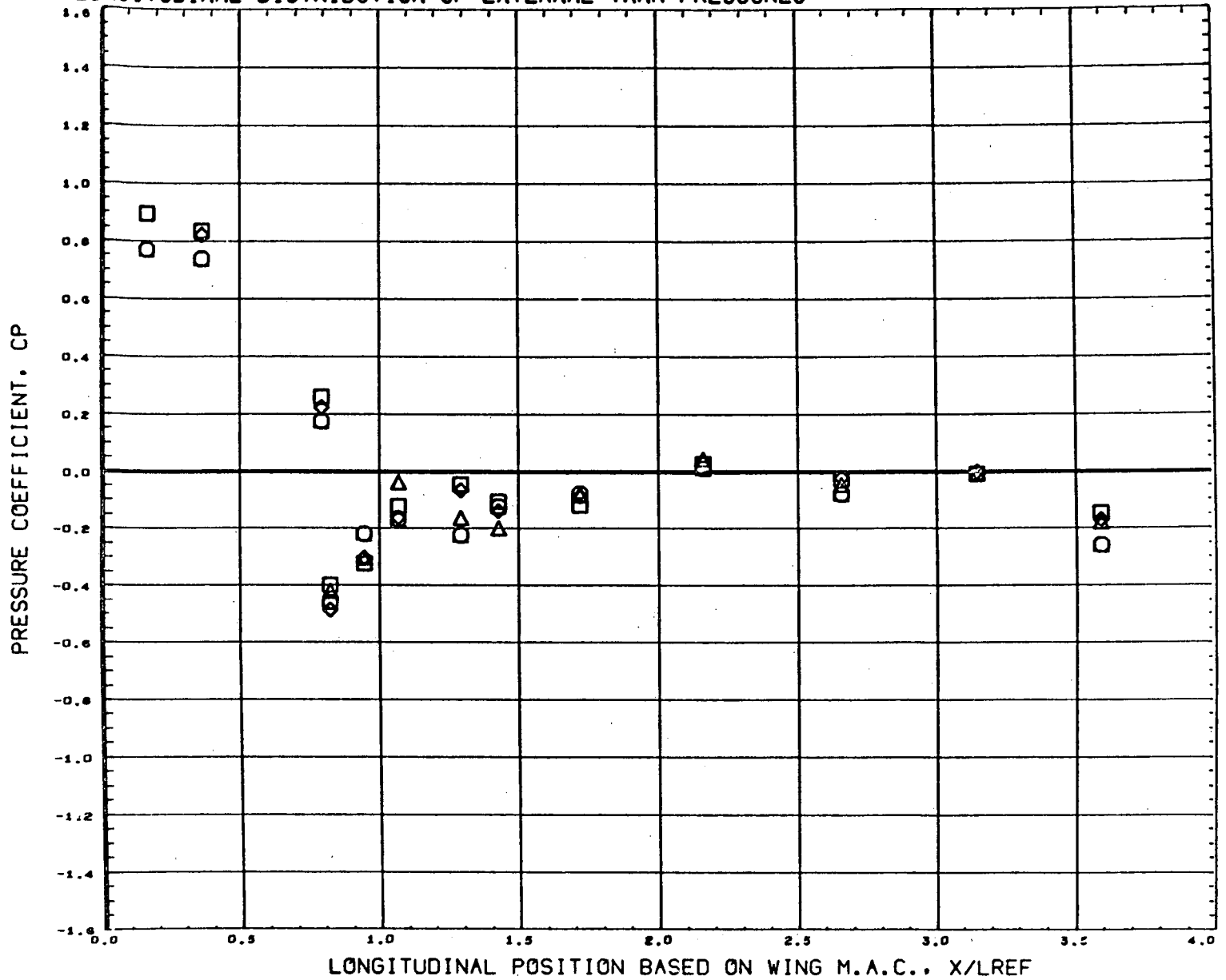
PARAMETRIC VALUES		
BETA	0.000	SRBGAP 0.025

REFERENCE FILE

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705TK)

PAGE 134

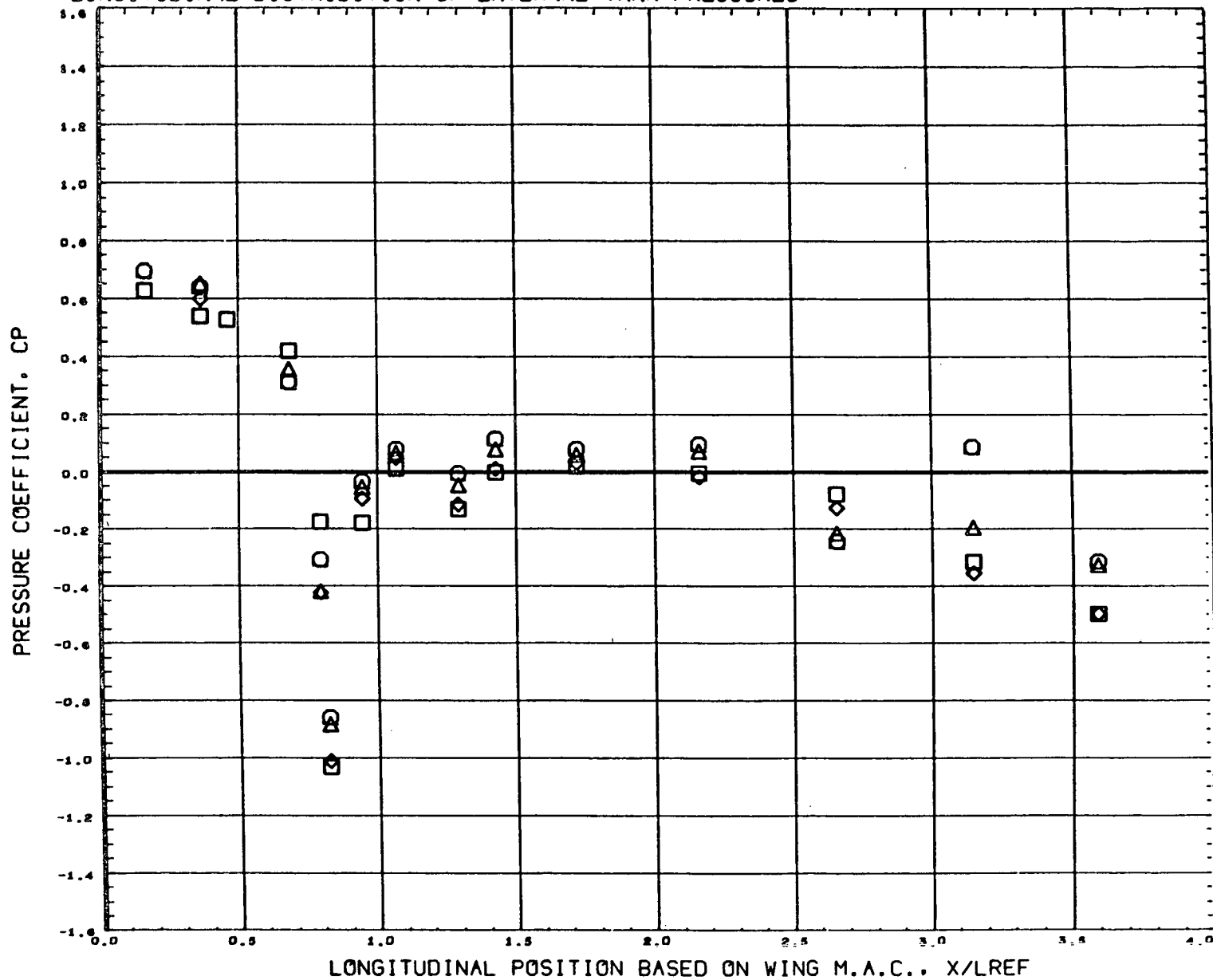
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126.000	10.000	1.200	BETA	0.000	SRBGAP 0.025
△	144.000					
◇	162.000					
□	180.000					

REFERENCE FILE

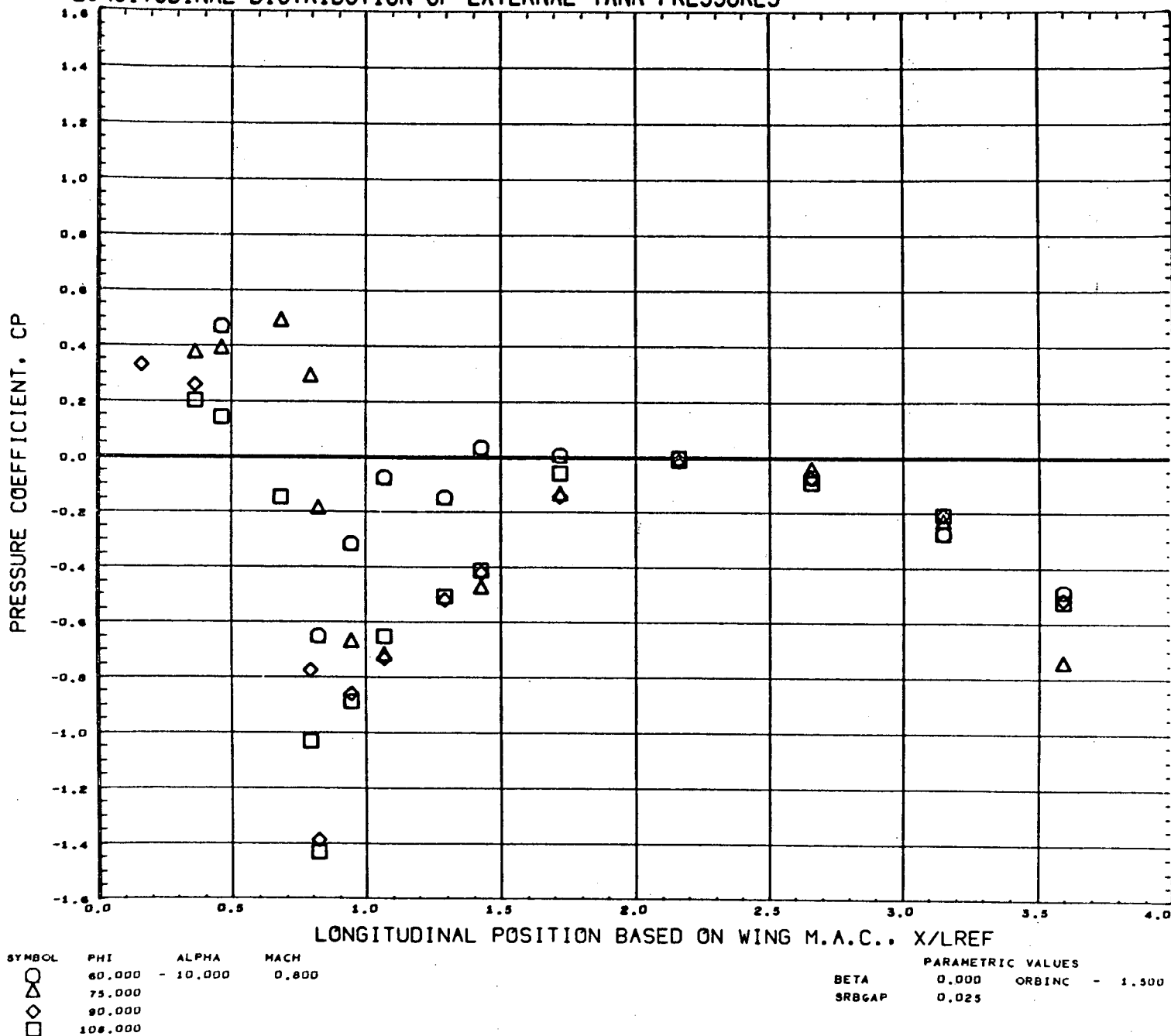
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	- 10.000	0.800	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

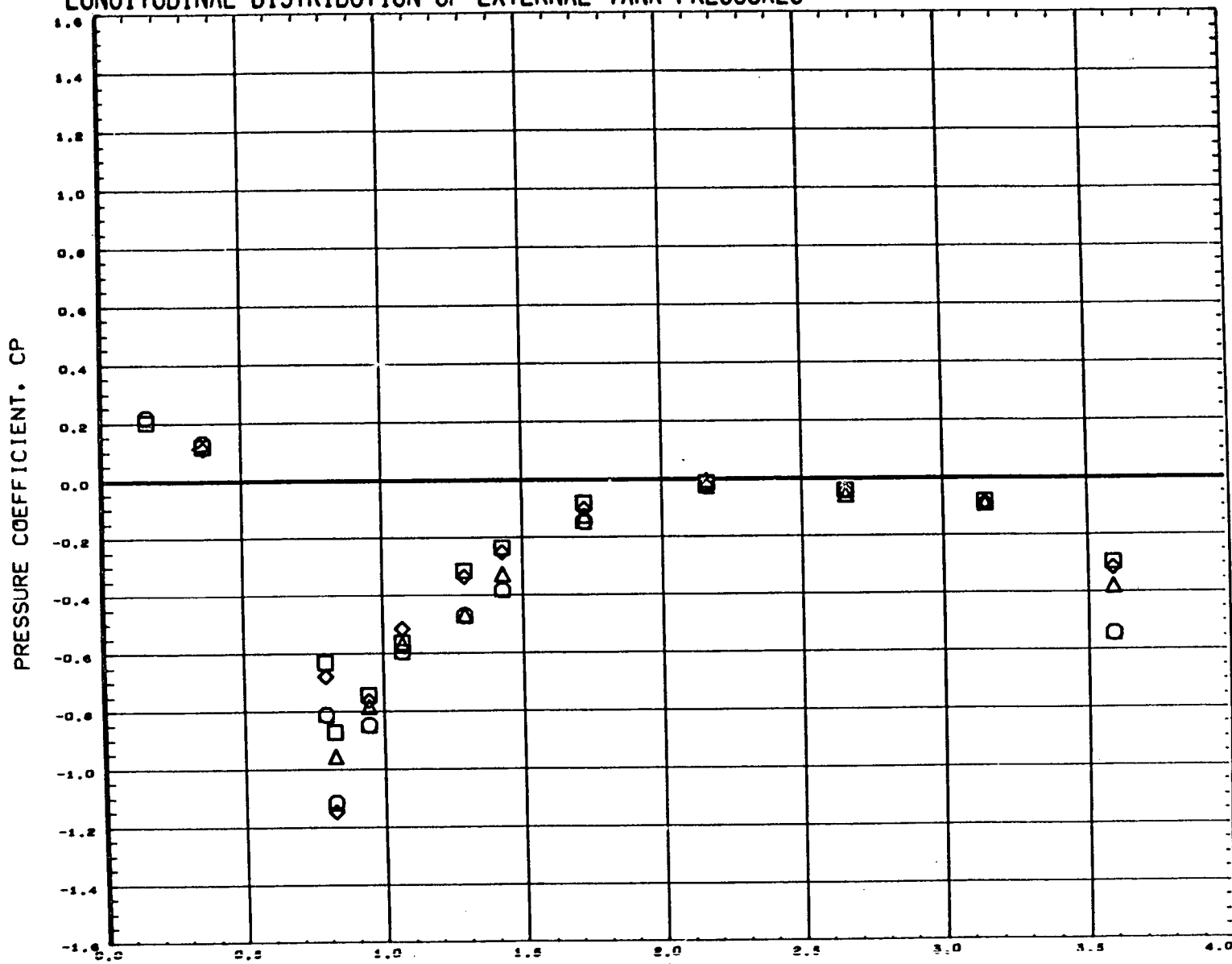


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 137

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	- 10,000	0.600
△	144,000		
◇	162,000		
□	180,000		

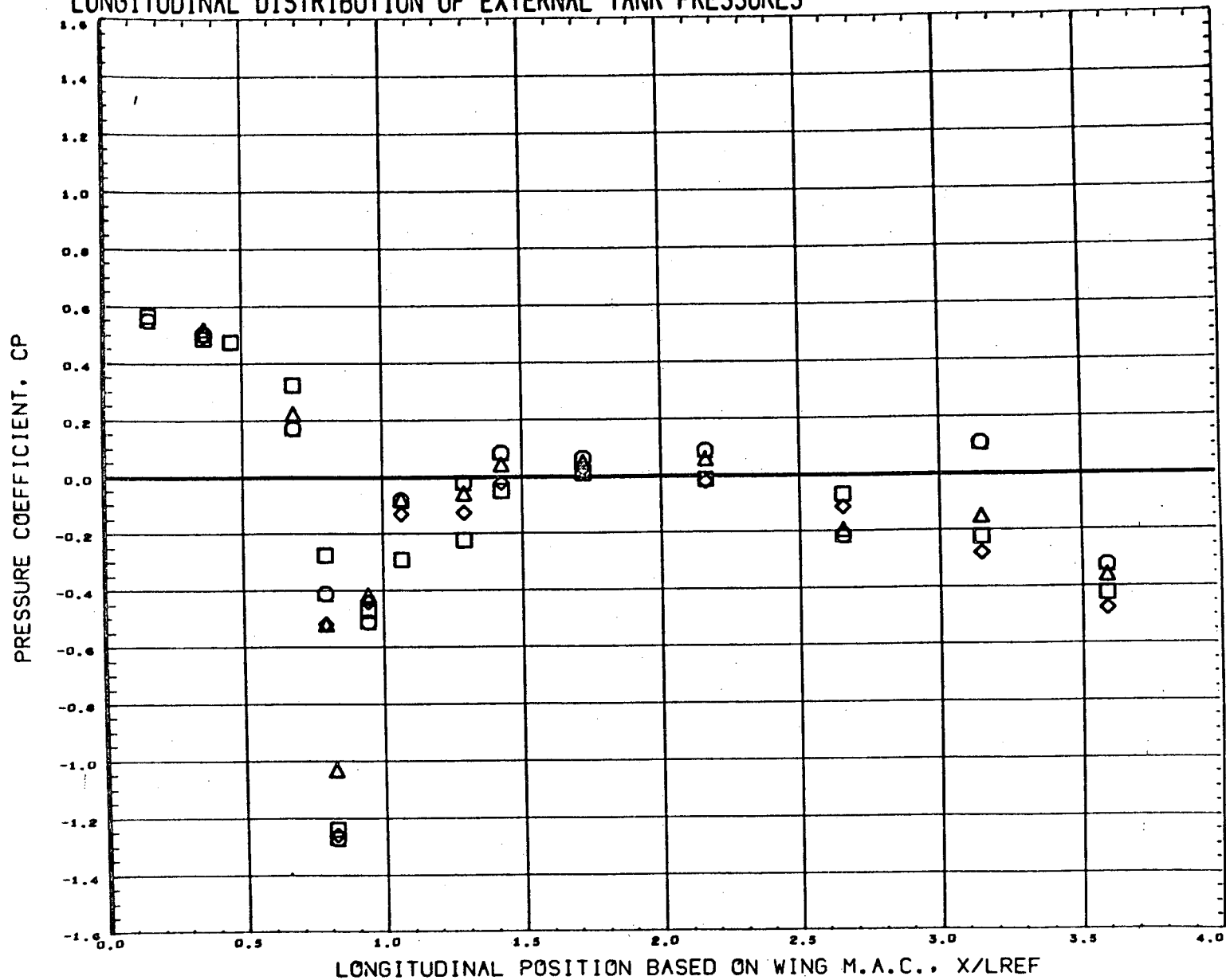
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 138

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 0.000 - 4.000 0.800
 △ 15.000
 ◇ 30.000
 □ 45.000

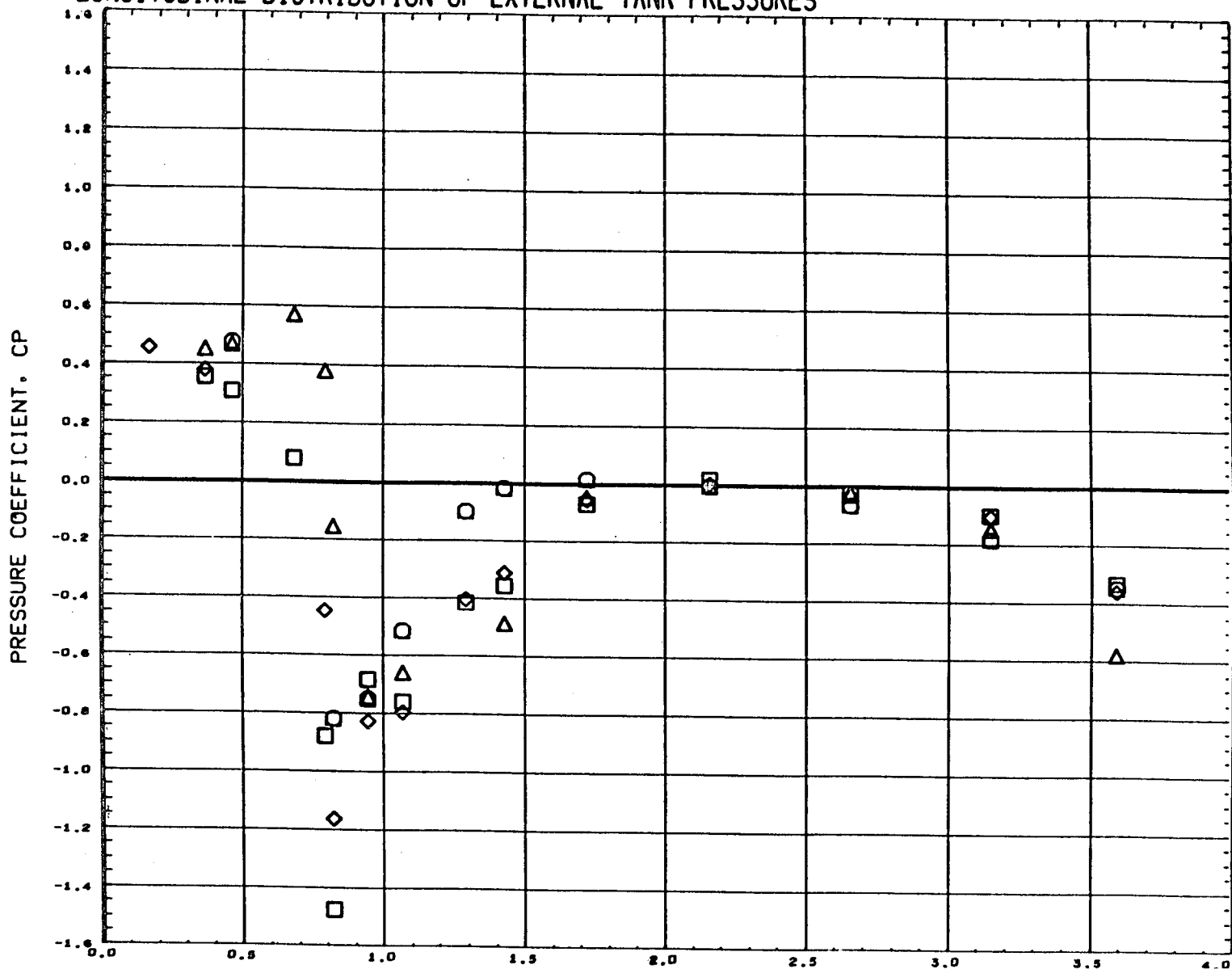
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 139

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



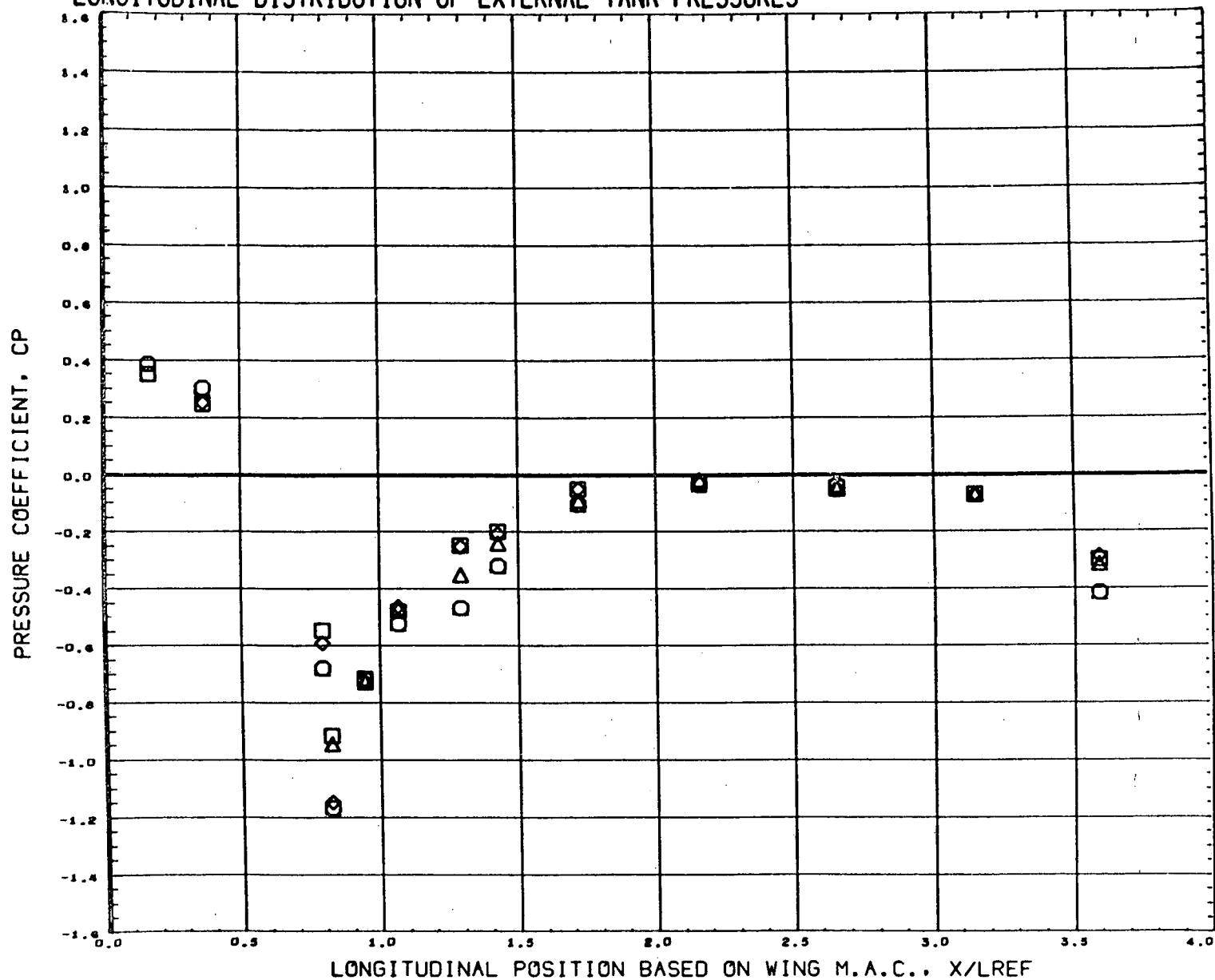
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	4.000	0.800	BETA	0.000 ORBINC - 1.500
△	75.000			SRBGAP	0.025
◇	90.000				
□	108.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 140

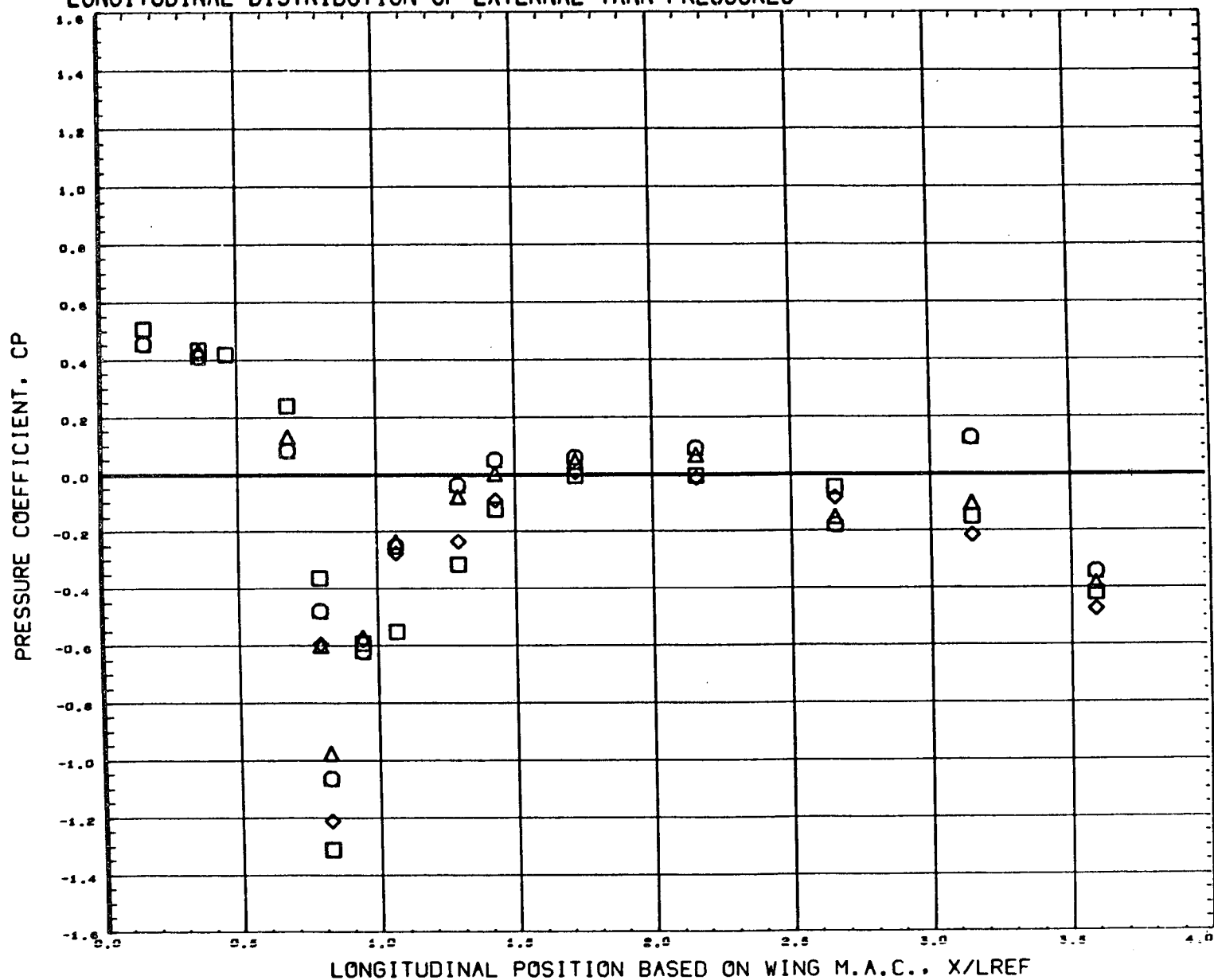
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	- 4.000	0.800	BETA	0.000 ORBINC - 1.500
△	144.000			SRBGAP	0.025
◇	162.000				
□	180.000				

REFERENCE FILE

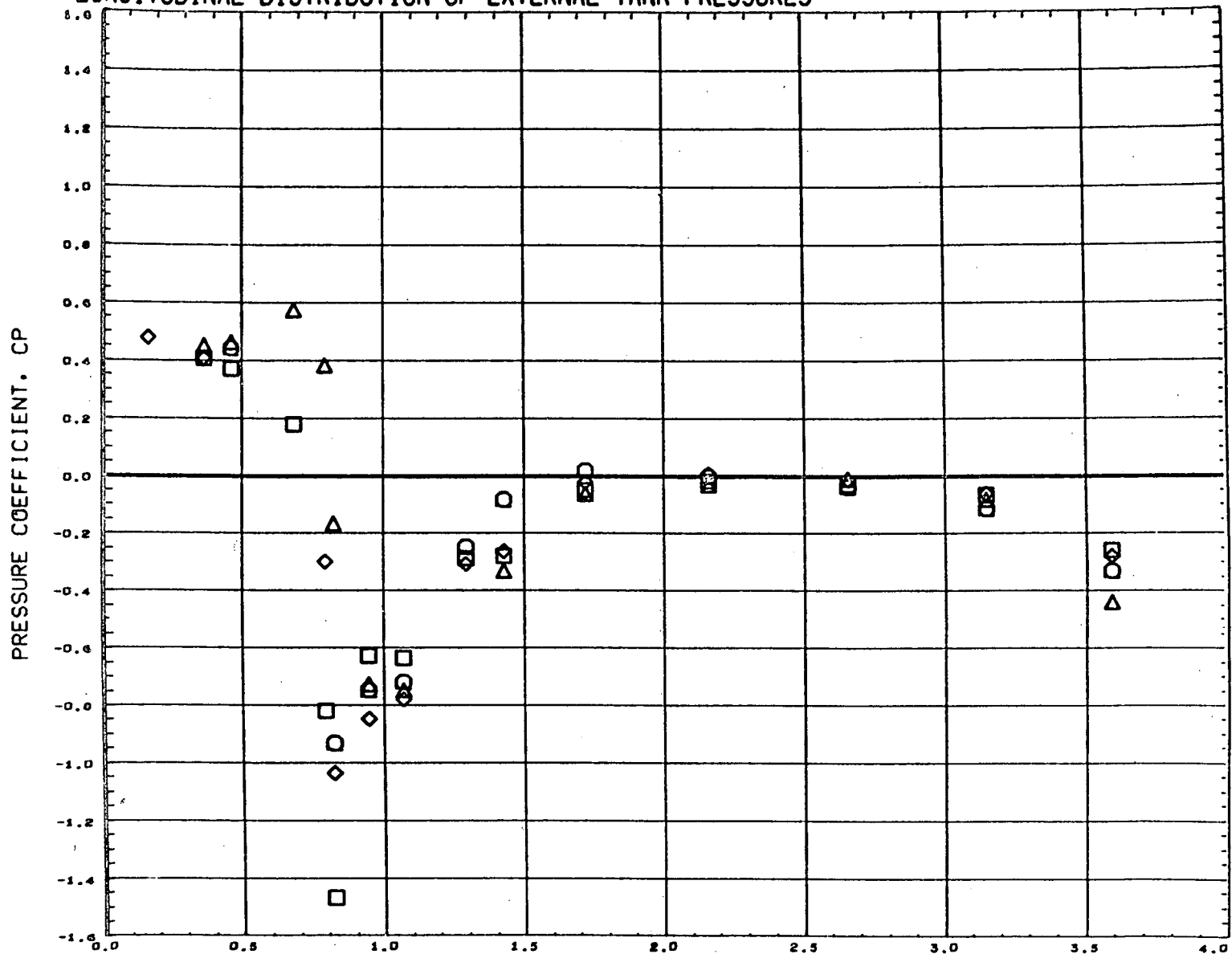
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	0.800	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



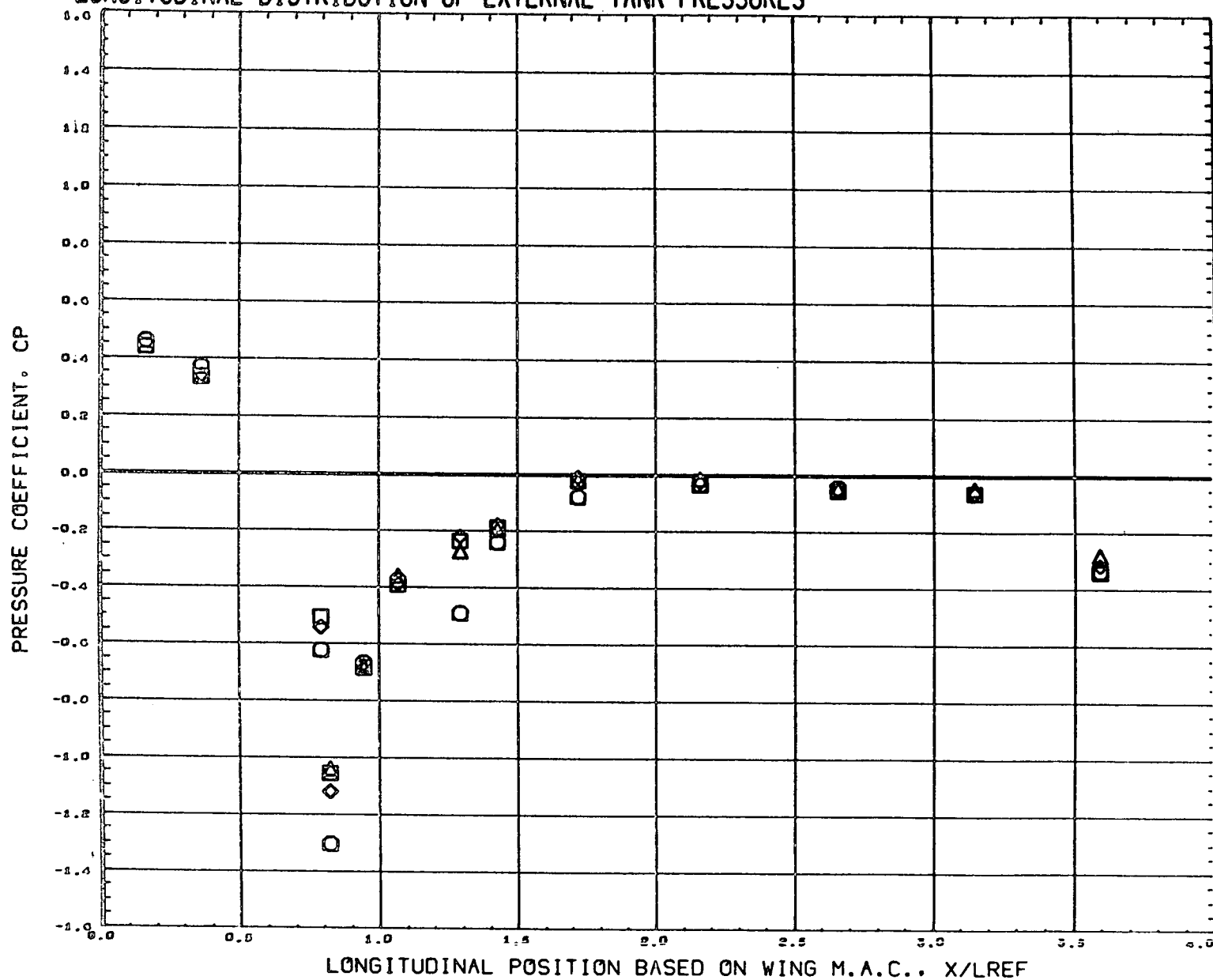
SYMBOL
 ○ 60.000
 △ 75.000
 ◇ 90.000
 □ 108.000

ALPHA 0.000
 MACH 0.800

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	0.000	0.800	BETA	0.000 ORBINC - 1.500
△	144.000			SRBGAP	0.025
◇	162.000				
□	180.000				

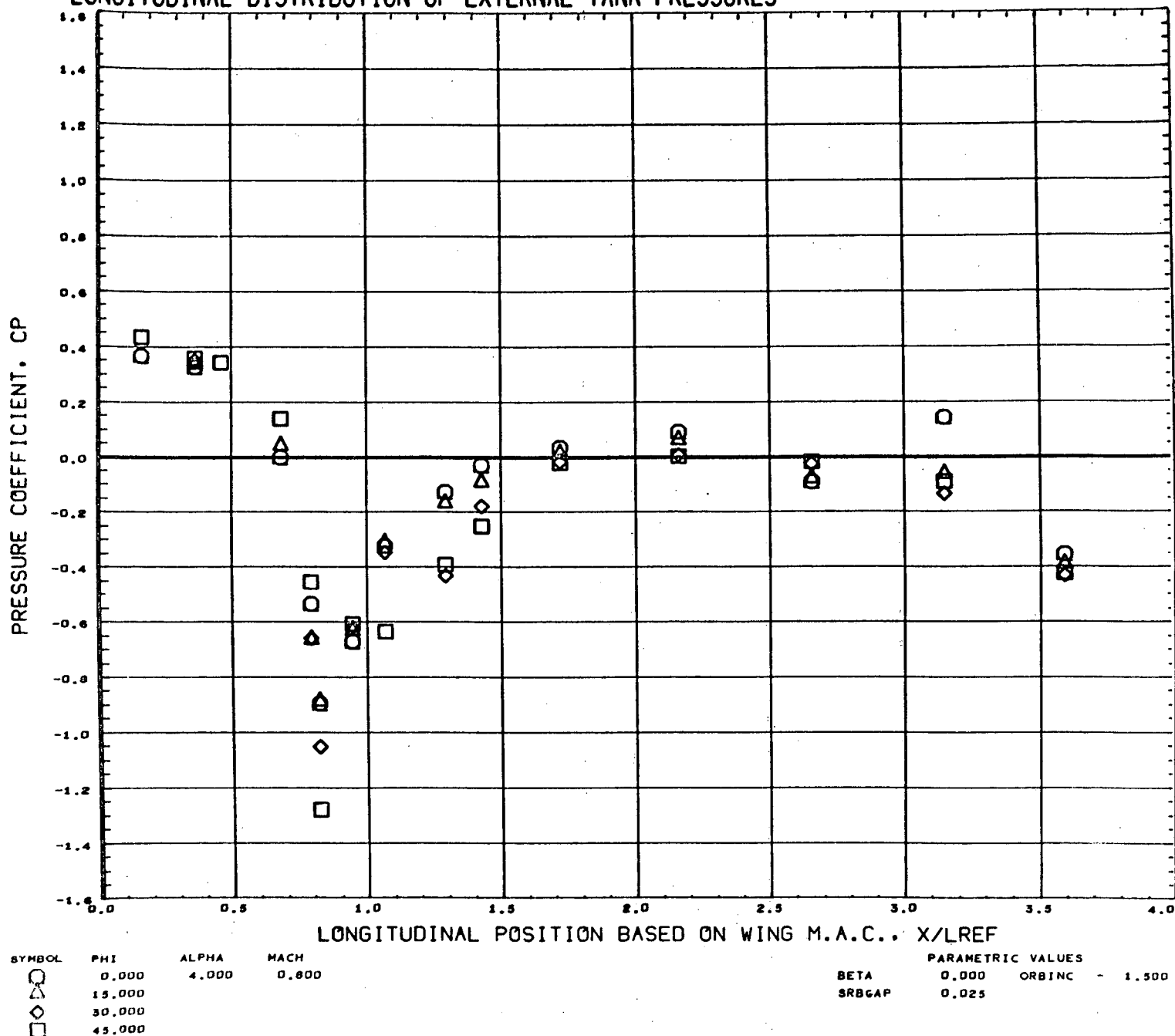
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 144

G

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

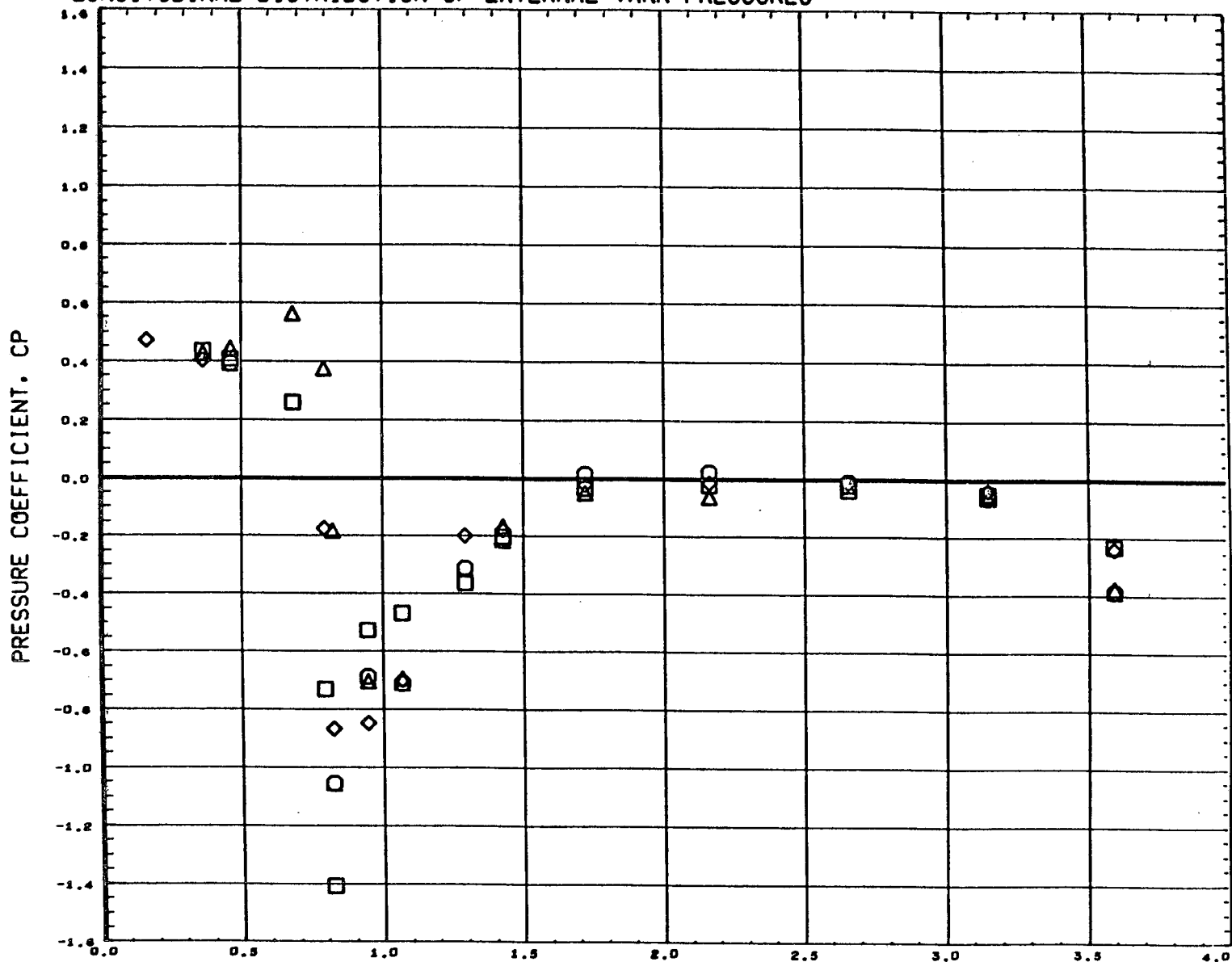


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 145

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL
 ○
 △
 ◇
 □

PHI	ALPHA	MACH
60.000	4.000	0.800
75.000		
90.000		
108.000		

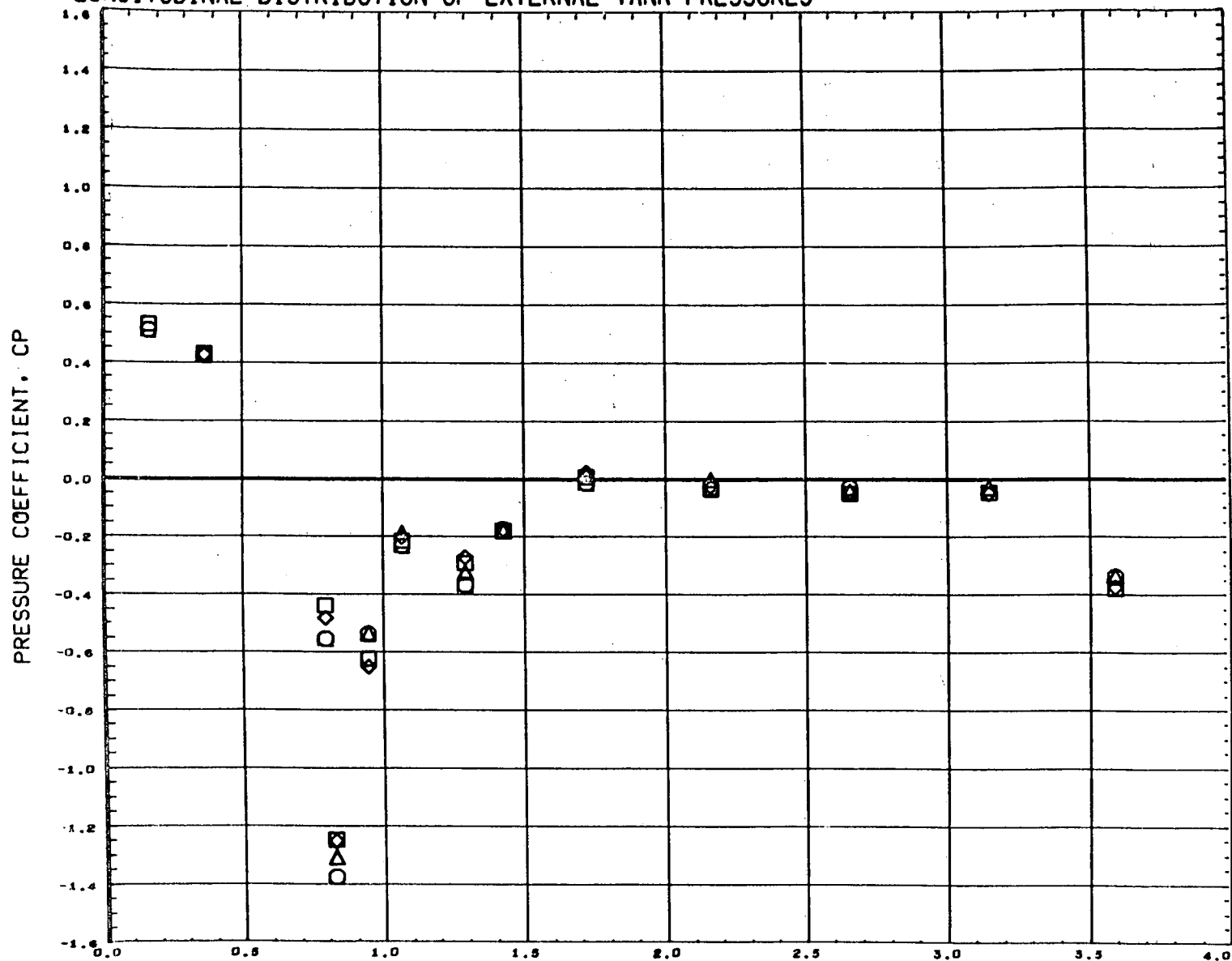
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 146

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

8 - HP CP
 O 126,000
 △ 144,000
 ◇ 162,000
 □ 180,000

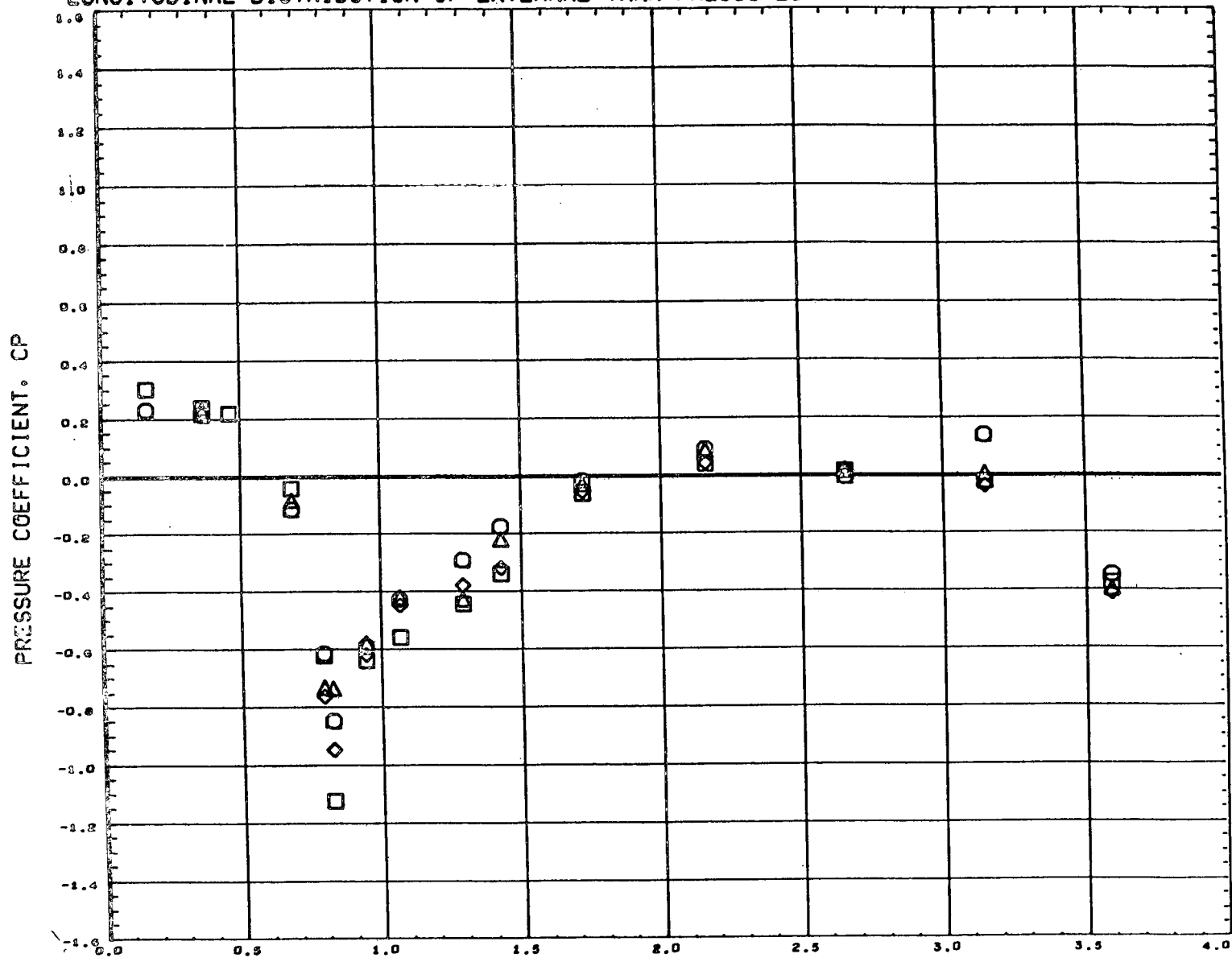
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 147

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	10.000	0.600
△	15.000		
◇	30.000		
□	45.000		

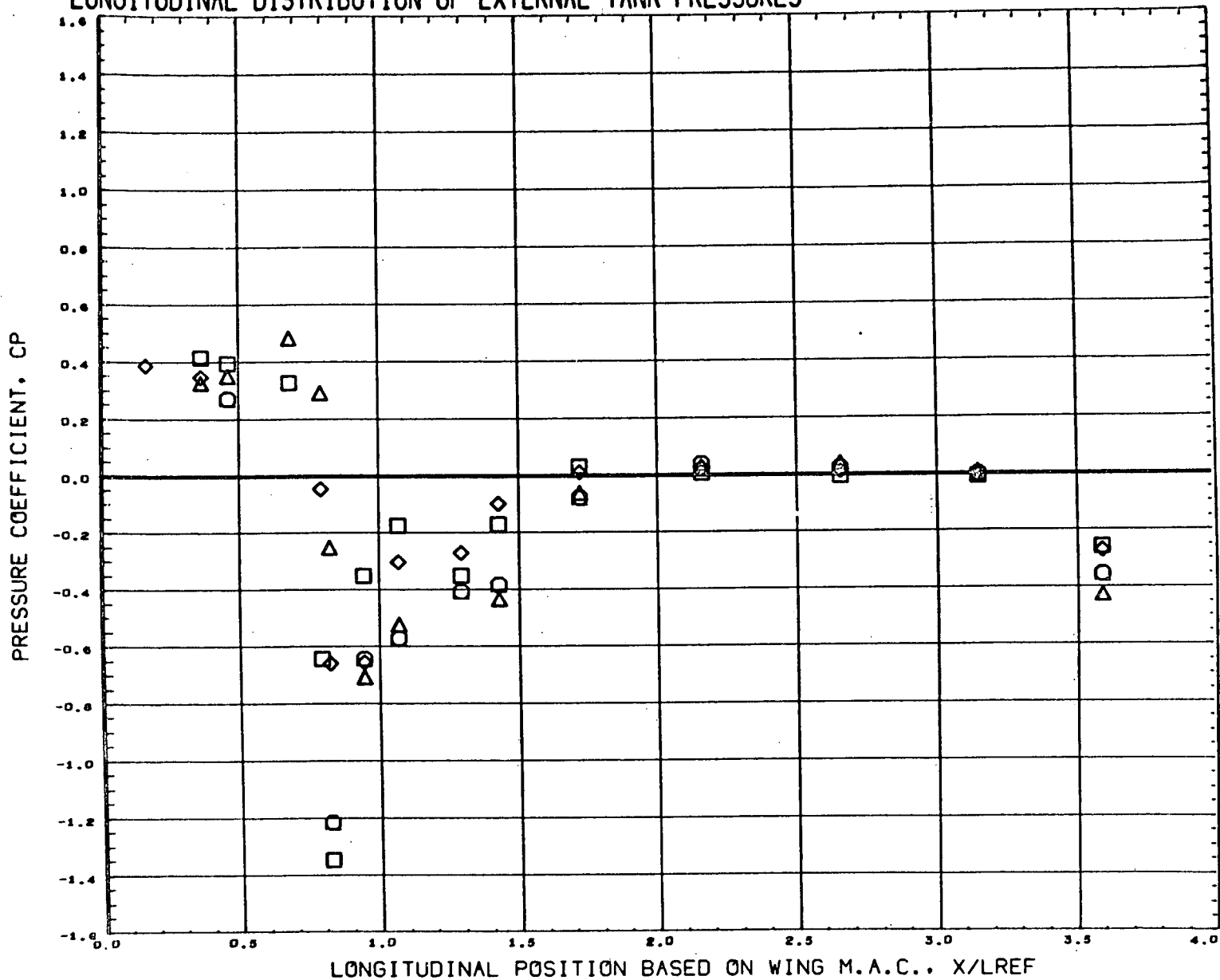
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 148

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



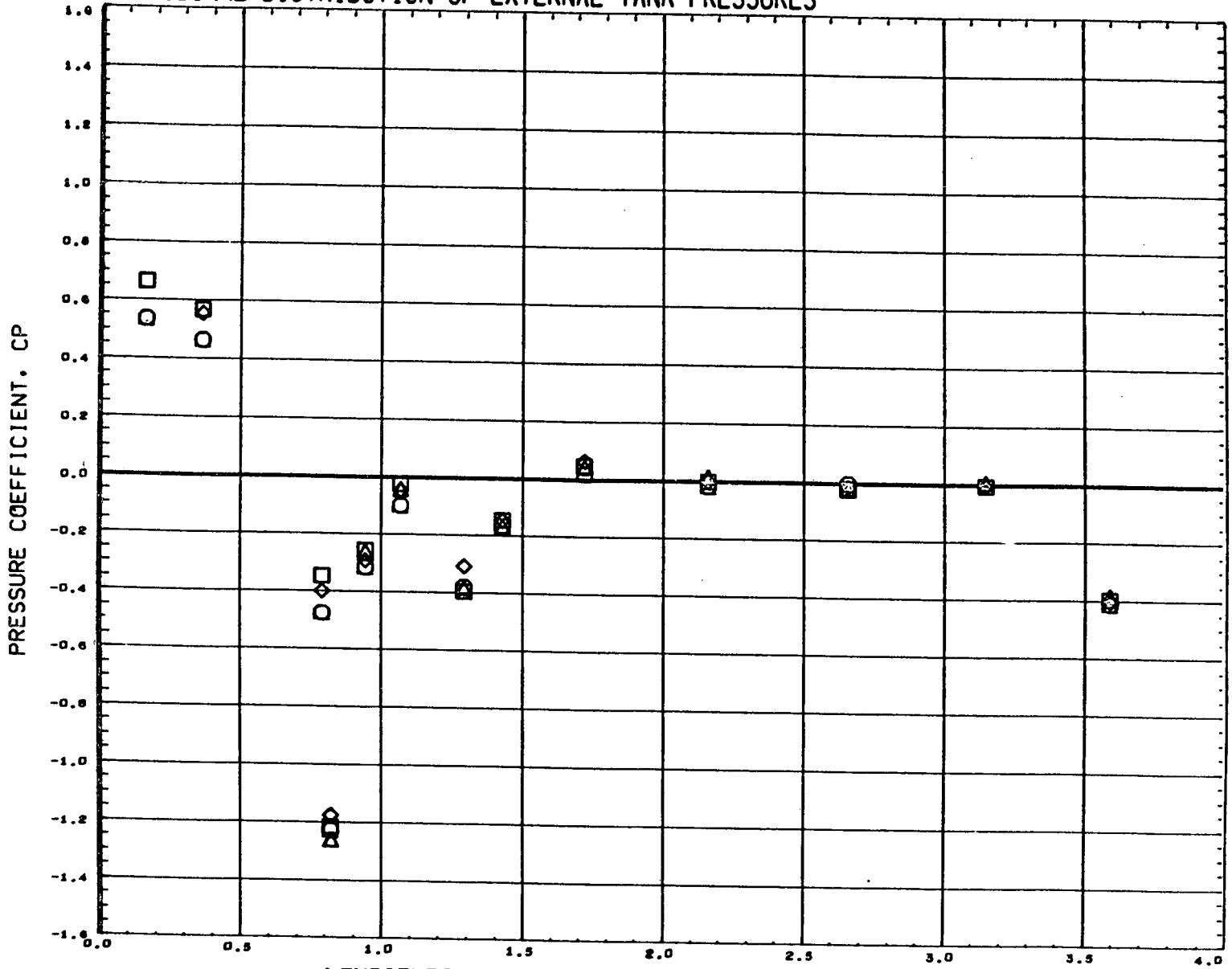
SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	60,000	10,000	0.800	0.000	0.025	ORBINC - 1.500
△	75,000					
◇	90,000					
□	100,000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 149

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



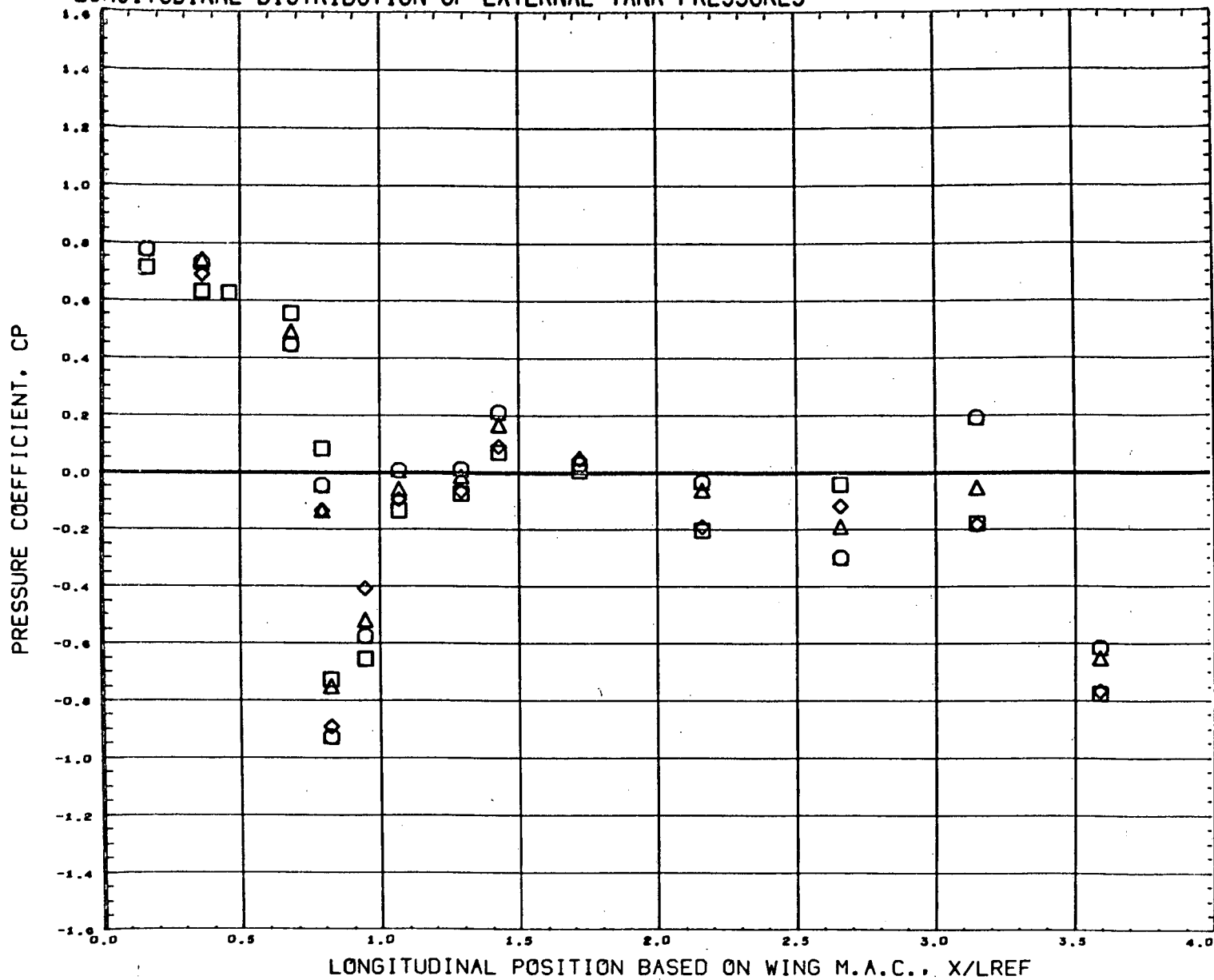
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126,000	10,000	0.800	BETA	0.000 ORBINC - 1.500
△	144,000			SRBGAP	0.025
◇	162,000				
□	160,000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 150

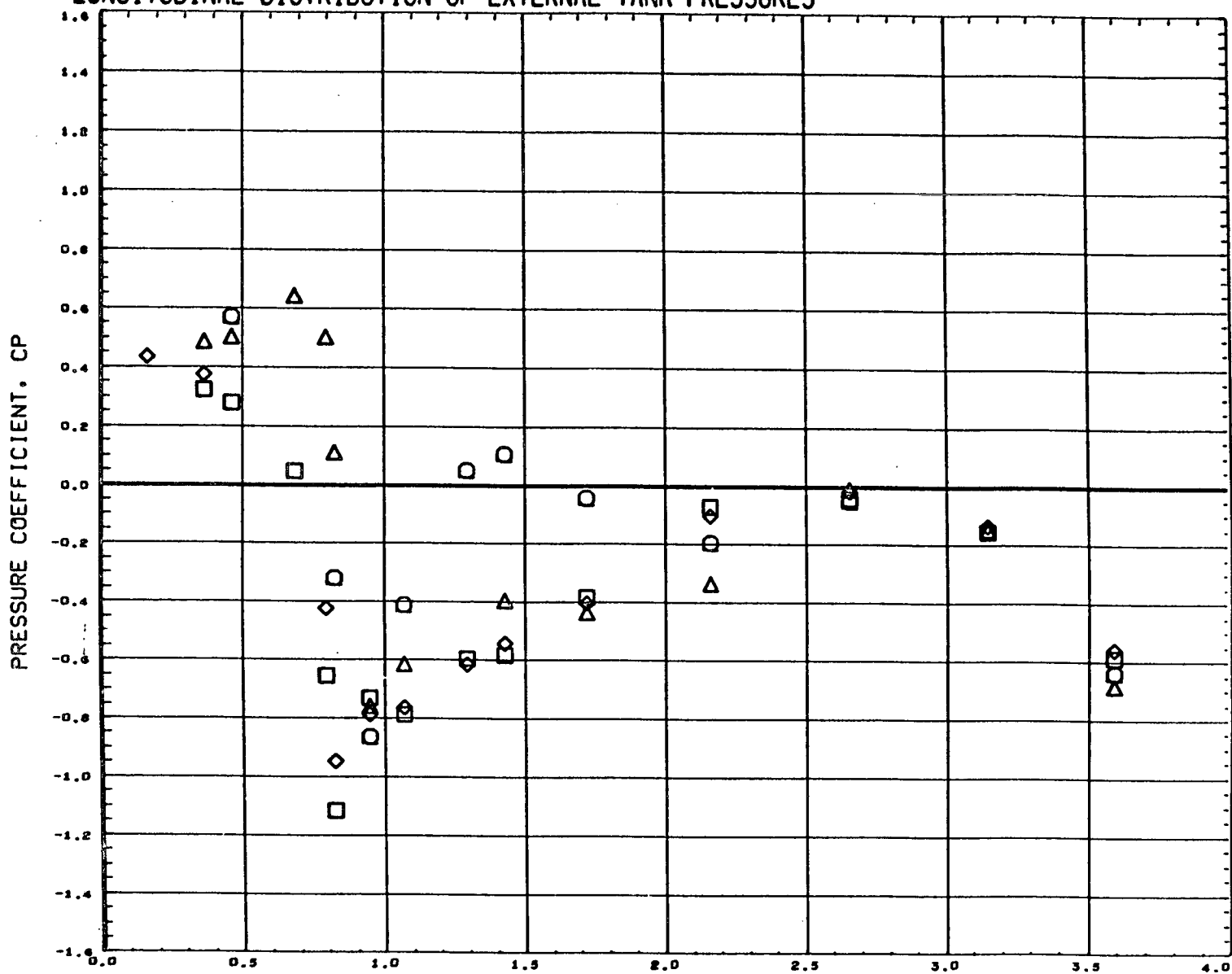
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
	0.000	10.000	0.950	BETA	0.000 ORBINC - 1.500
○	15.000			SRBCAP	0.025
△	30.000				
◇	45.000				
□					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60,000	- 10,000	0.950
△	75,000		
◇	90,000		
□	100,000		

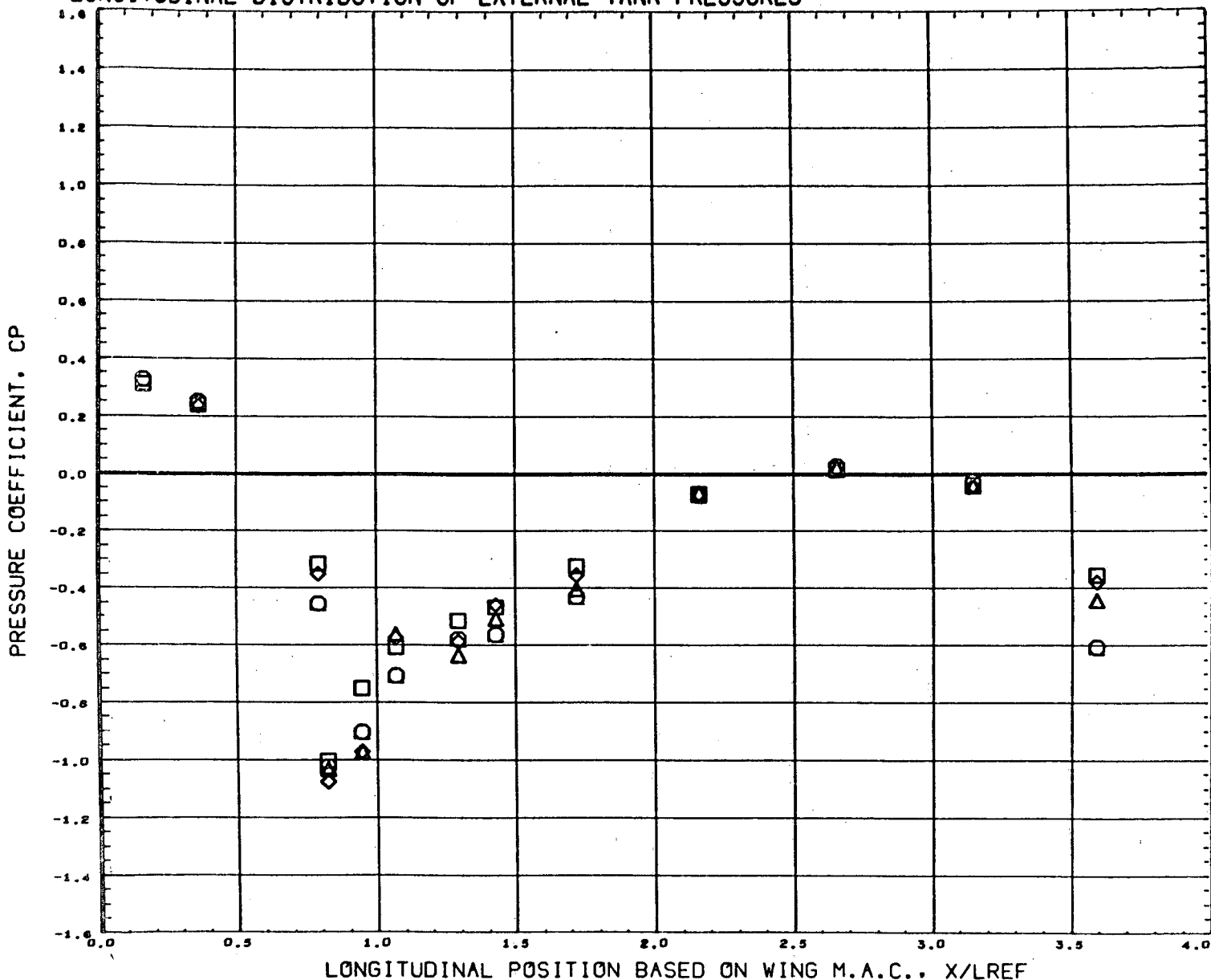
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 152

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



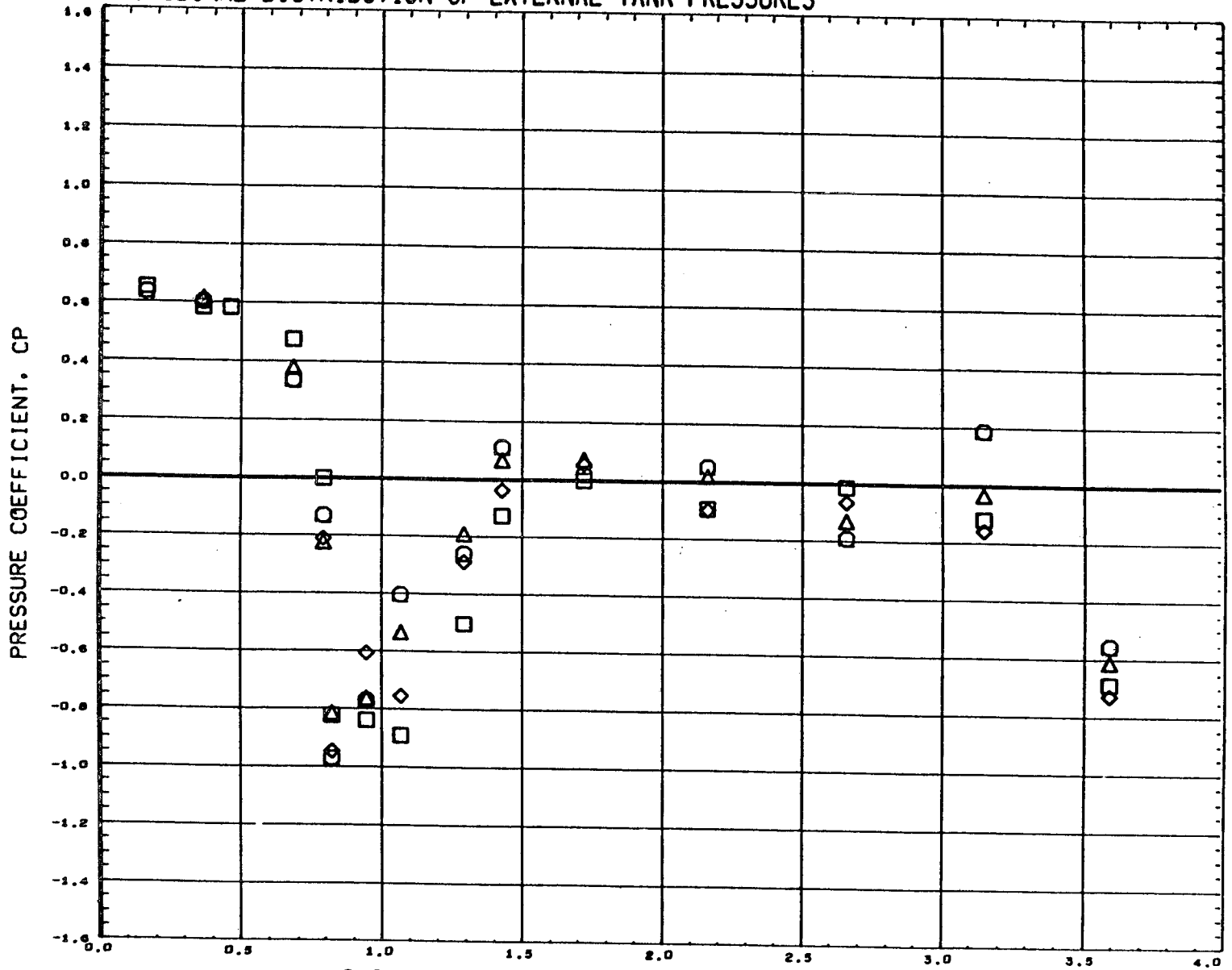
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	- 10.000	0.950
△	144.000		
◇	162.000		
□	180.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	4.000	0.950
△	15.000		
◇	30.000		
□	45.000		

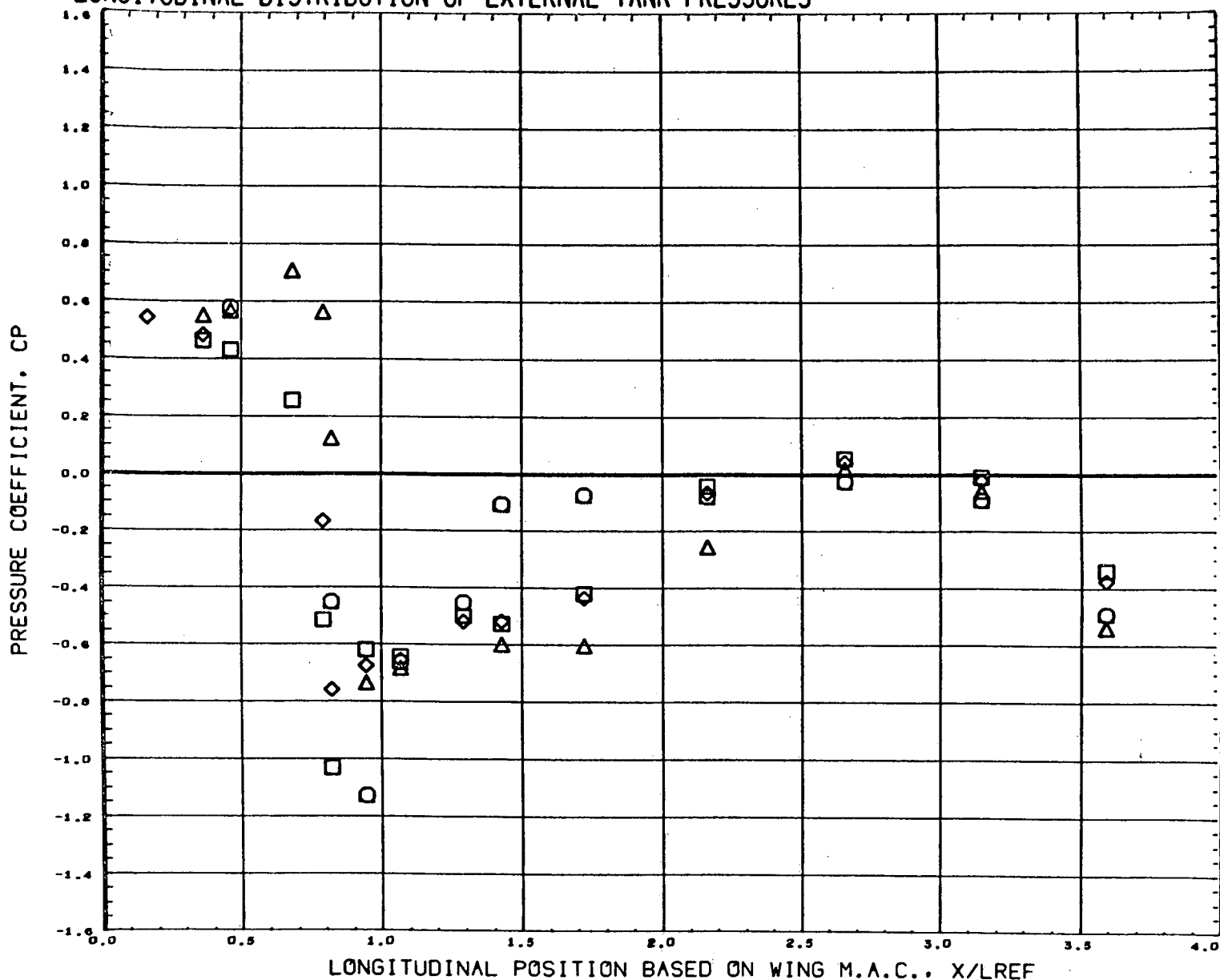
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 154

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60,000	4,000	0.950
△	75,000		
◇	90,000		
□	100,000		

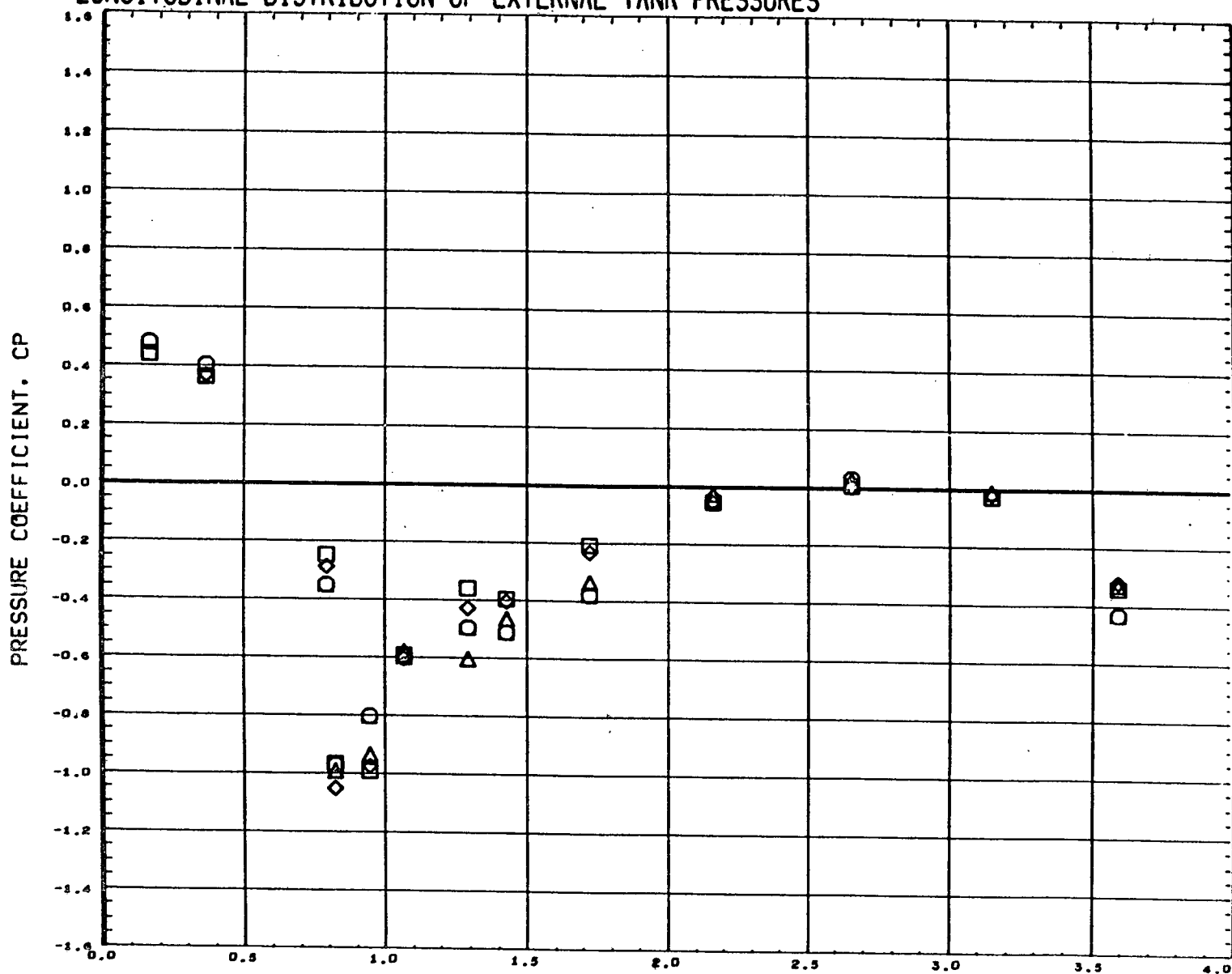
PARAMETRIC VALUES	
BETA	0.000
SRBCAP	0.025
ORBINC	1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 155

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	4.000	0.950
△	144.000		
◇	162.000		
□	180.000		

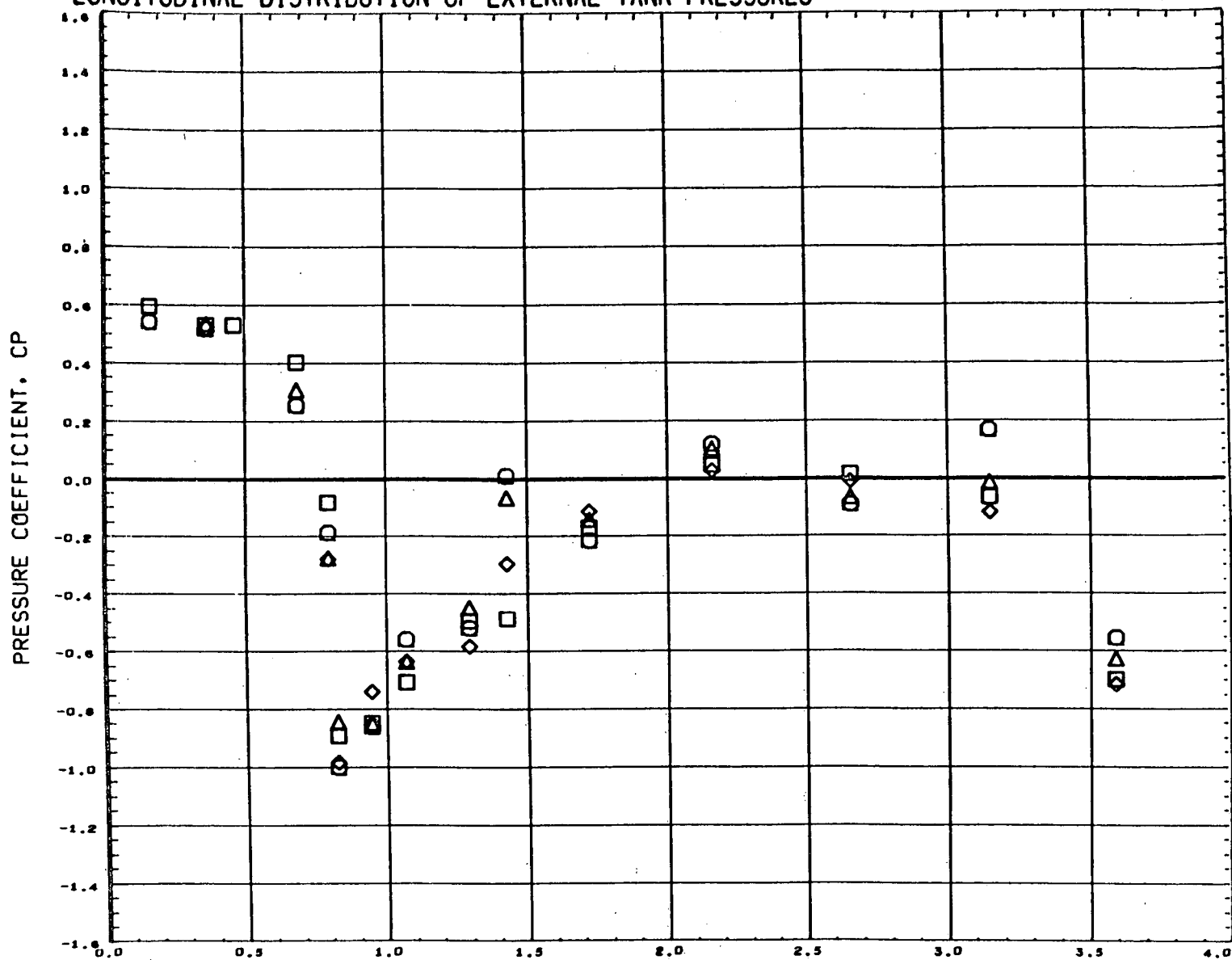
PARAMETRIC VALUES	
BETA	0.000
SRBGAP	0.025
ORBINC	1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 156

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



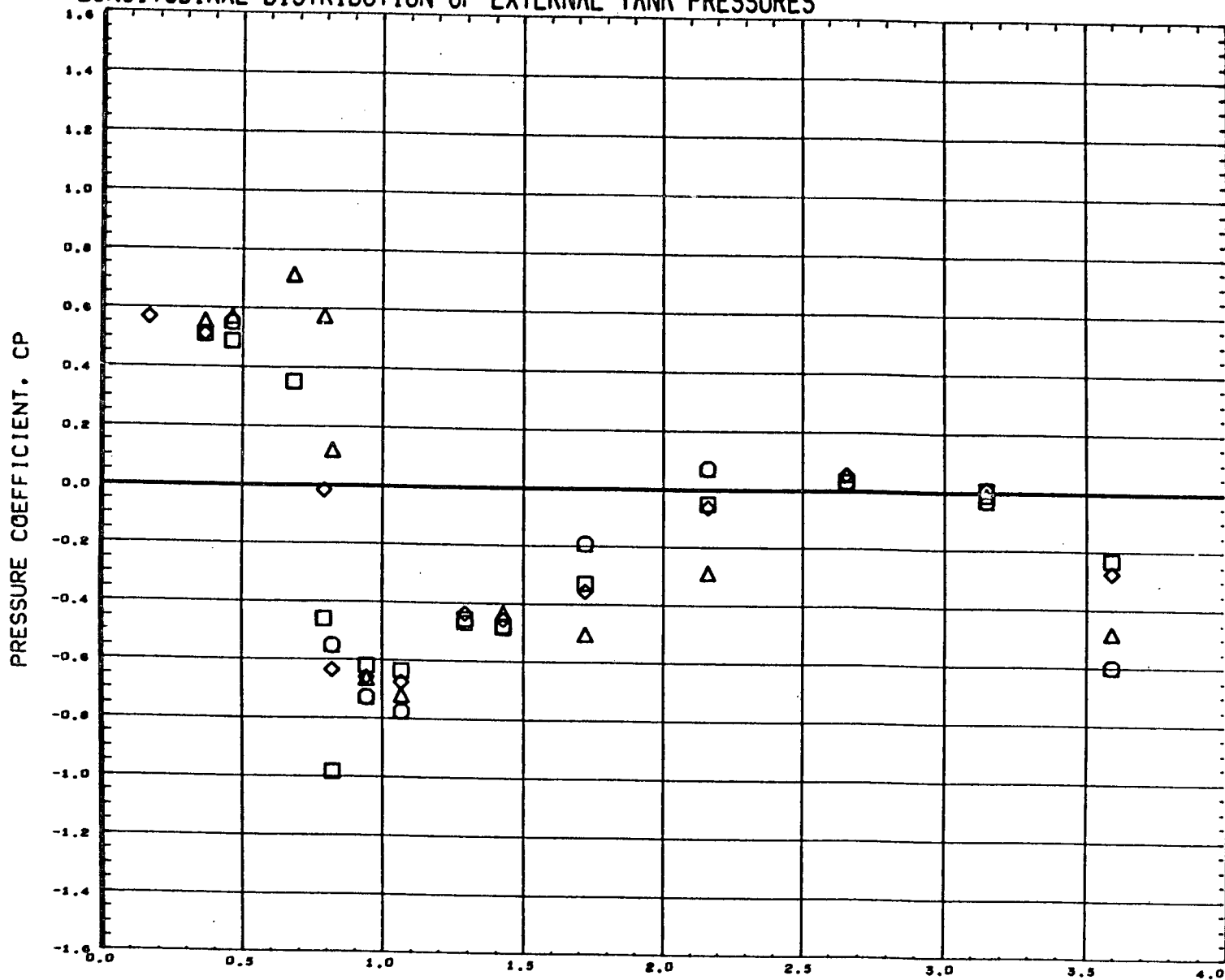
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	0.950	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 157

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60,000	0.000	0.950
△	75,000		
◇	90,000		
□	100,000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

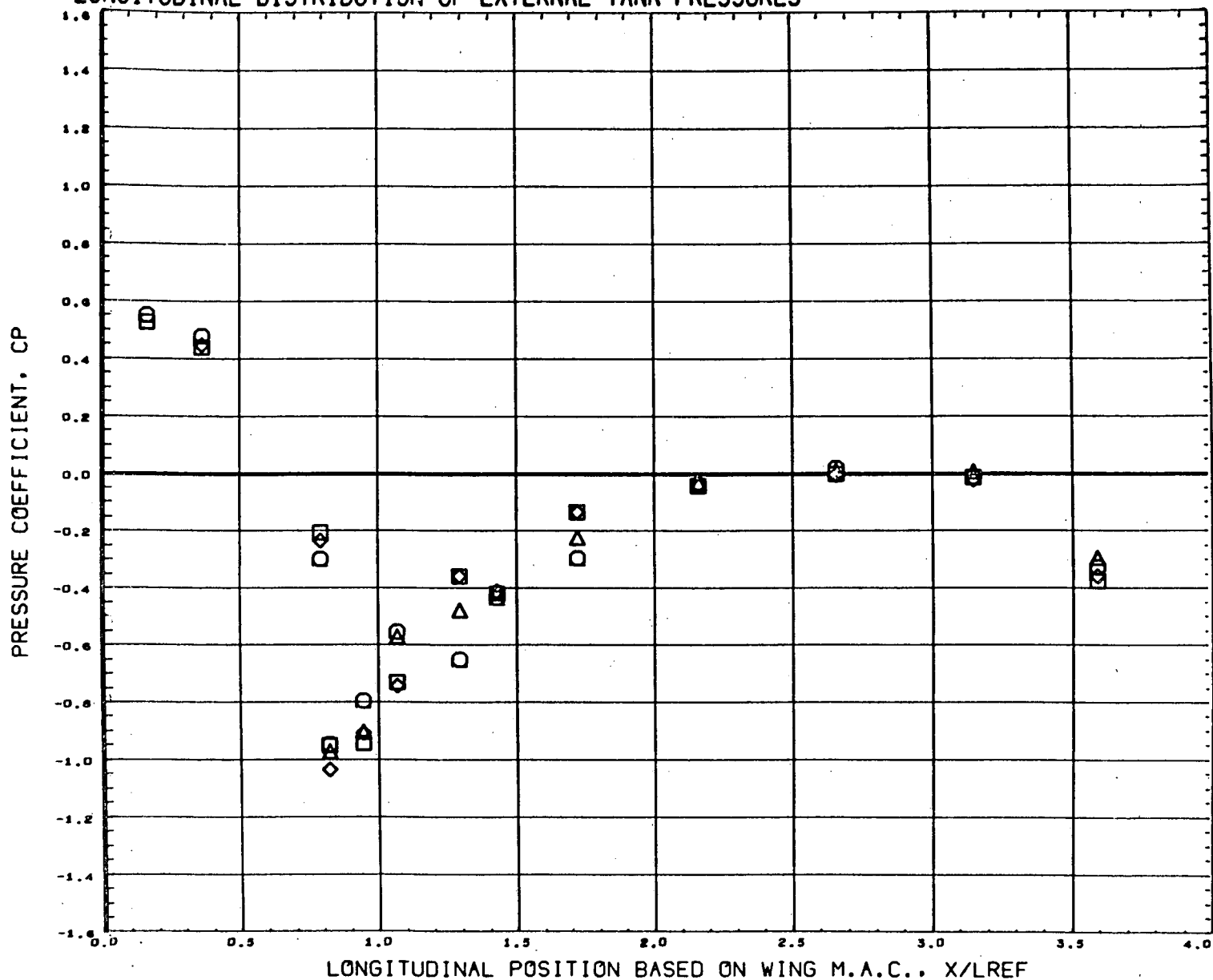
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 158

CS

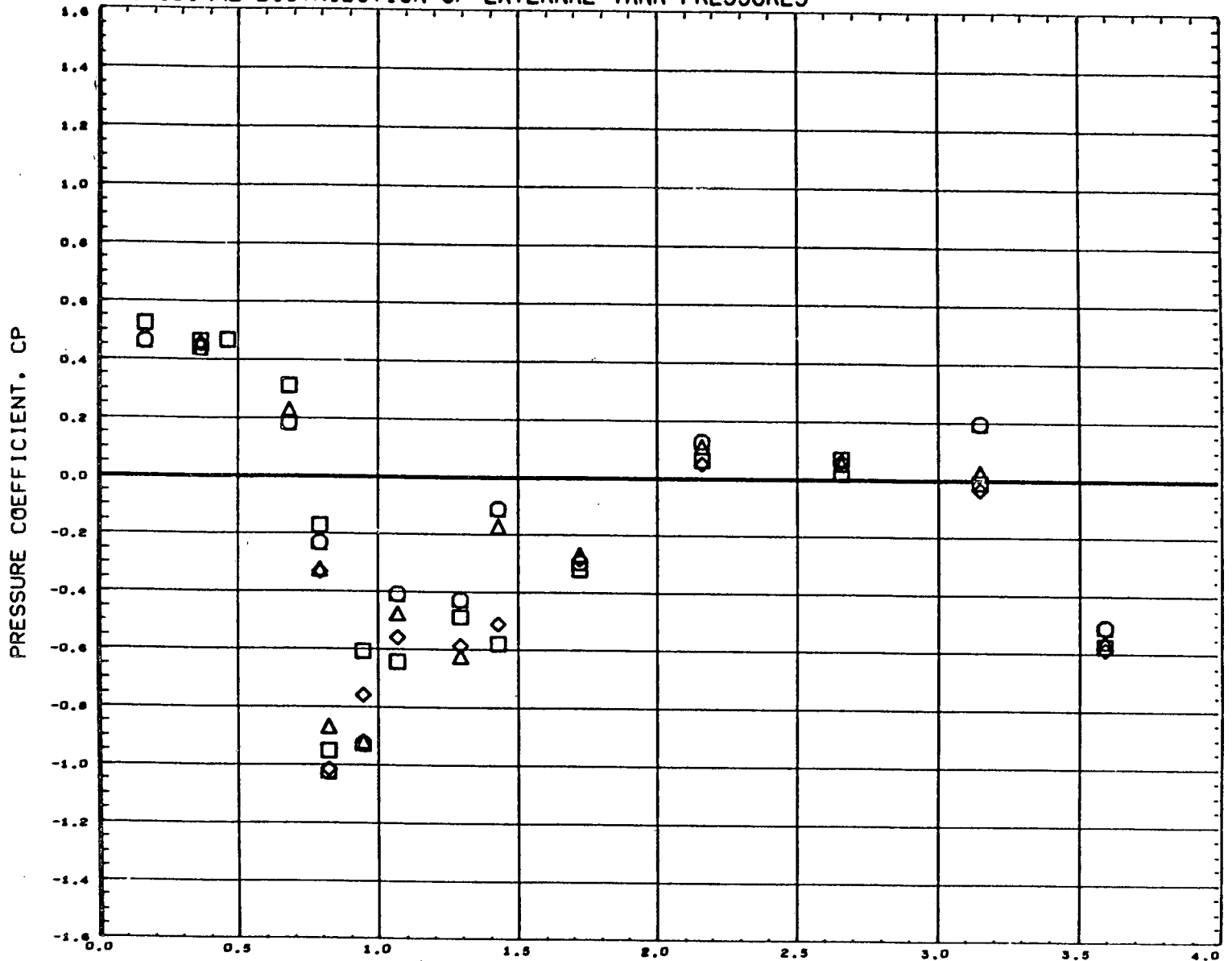
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL ○ △ ◇ □	PHI	ALPHA	MACH	PARAMETRIC VALUES		
	126.000	0.000	0.950	BETA	0.000	ORBINC - 1.500
	144.000			SRBGAP	0.025	
	162.000					
	180.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



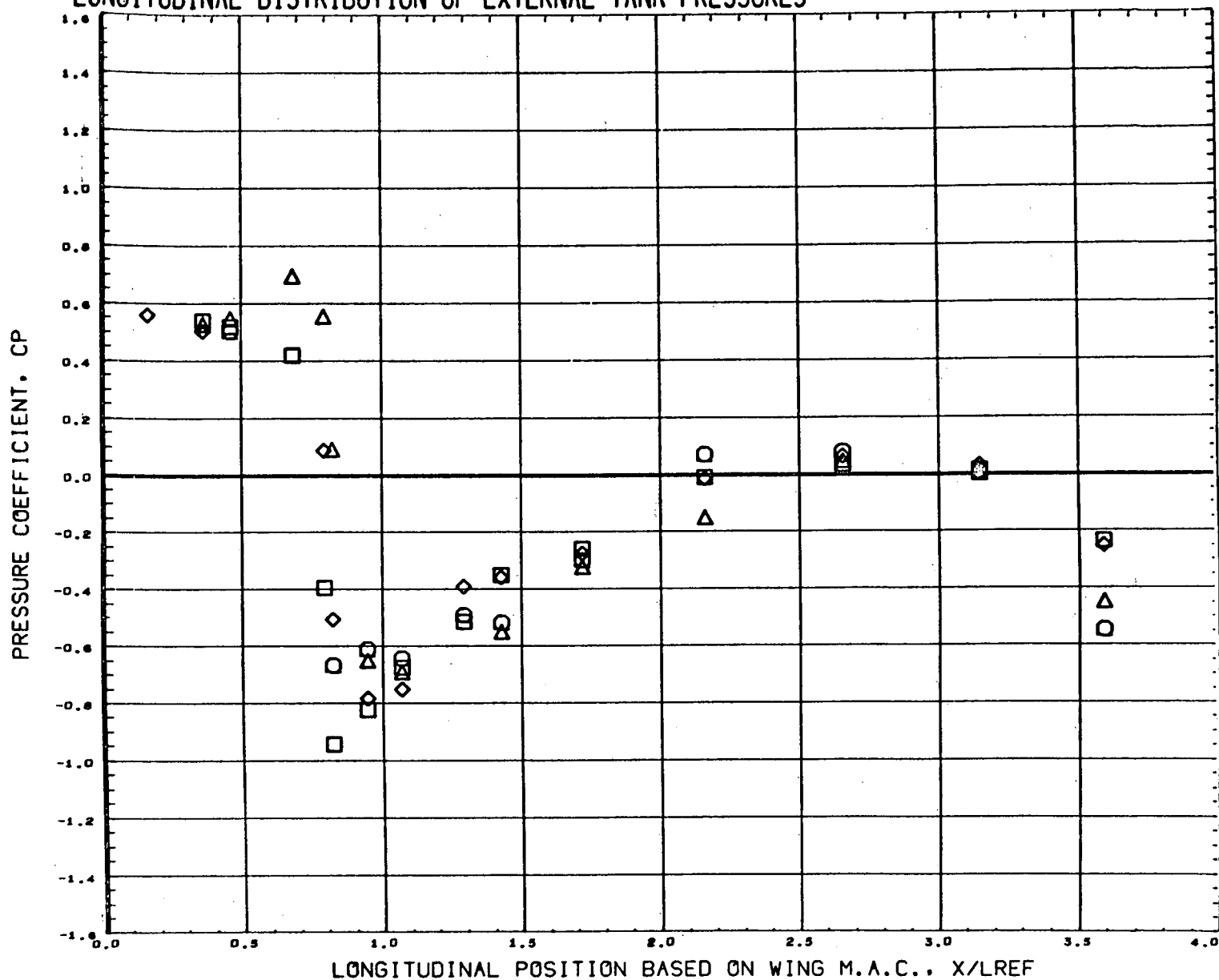
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	0.950	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 160

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



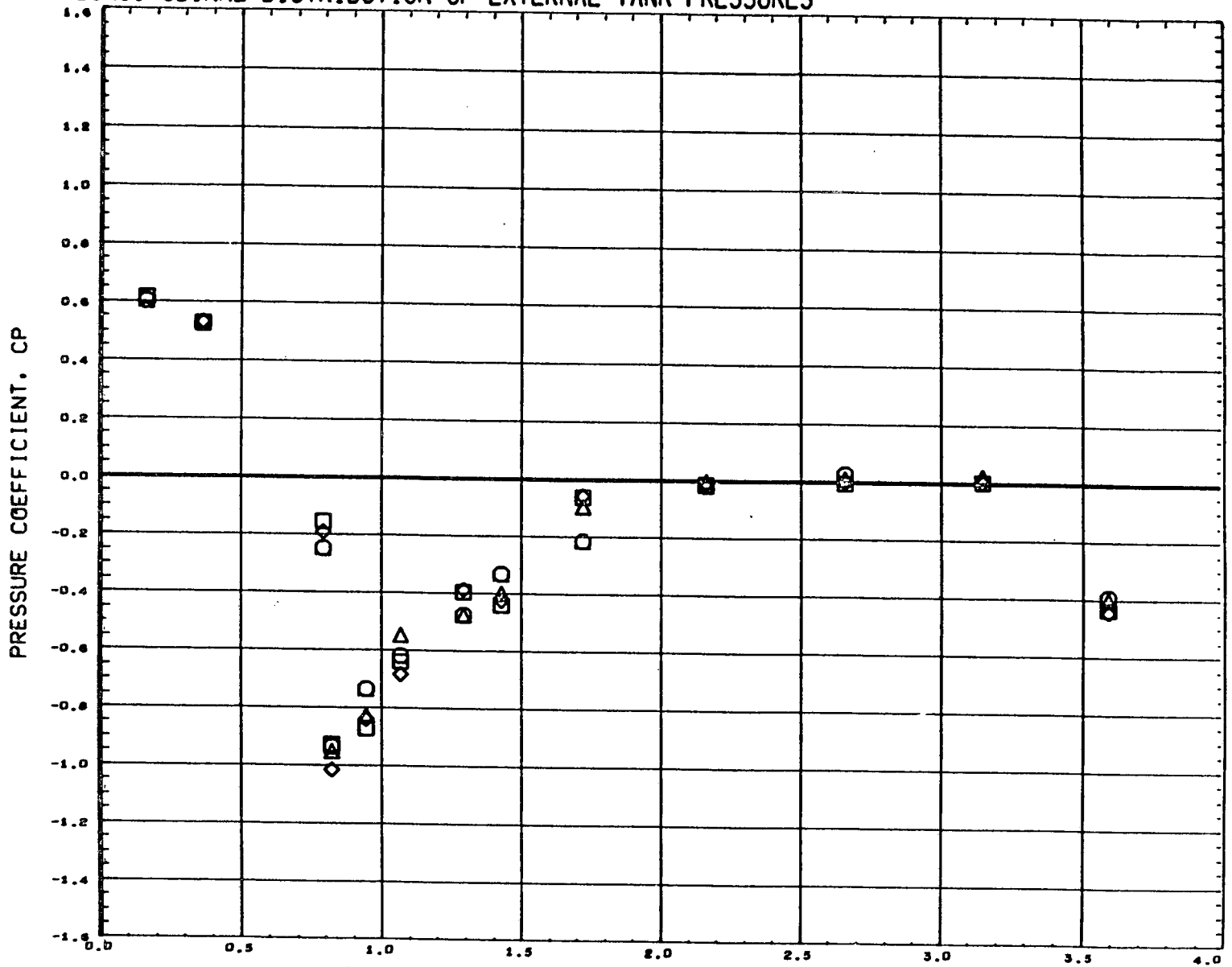
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	4.000	0.950	BETA	0.000	ORBINC - 1.500
△	75.000			SRBCAP	0.025	
◇	90.000					
□	100.000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 161

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



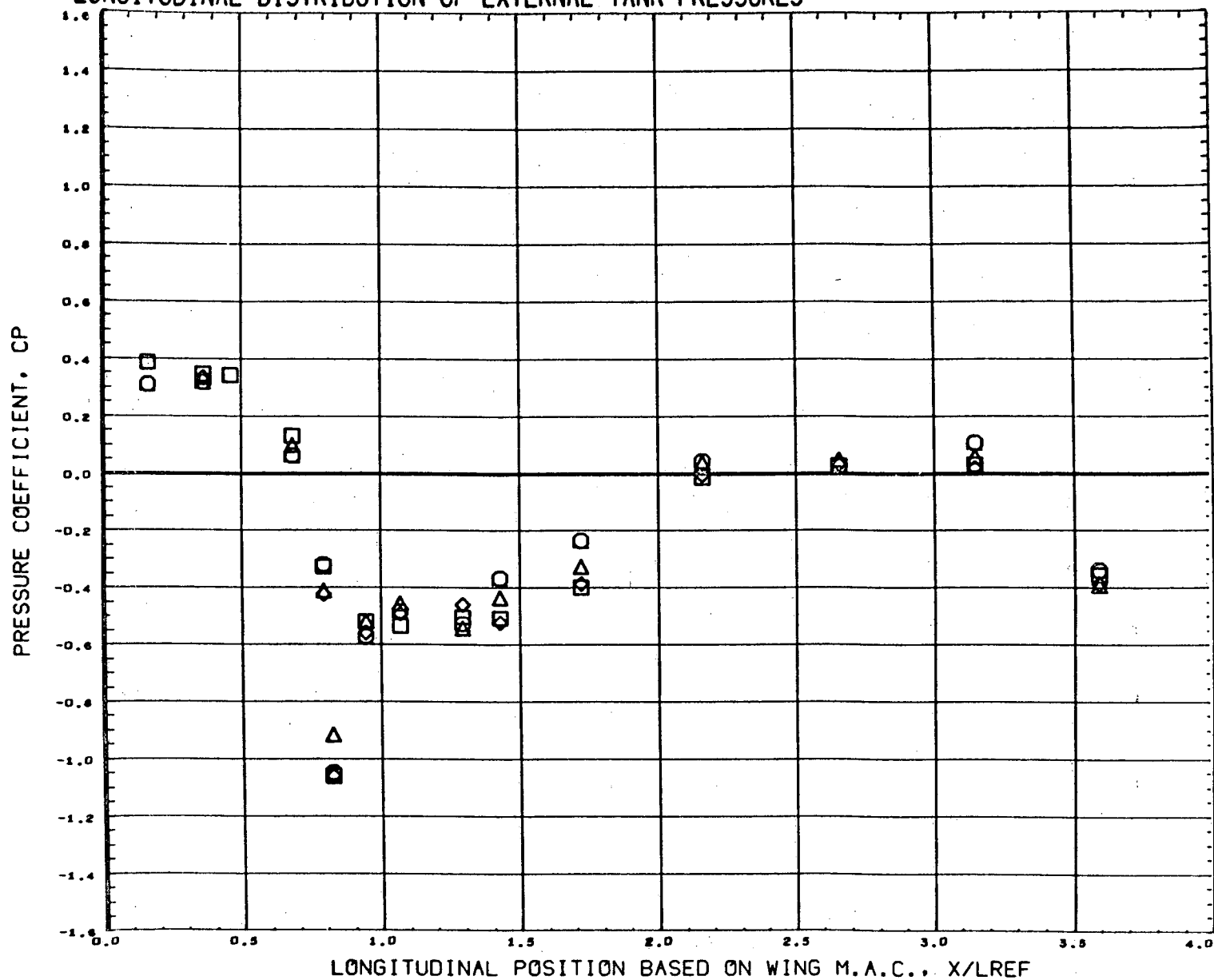
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	4.000	0.950	BETA	0.000 ORBINC - 1.500
△	144.000			SRBGAP	0.025
◇	162.000				
□	180.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 162

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



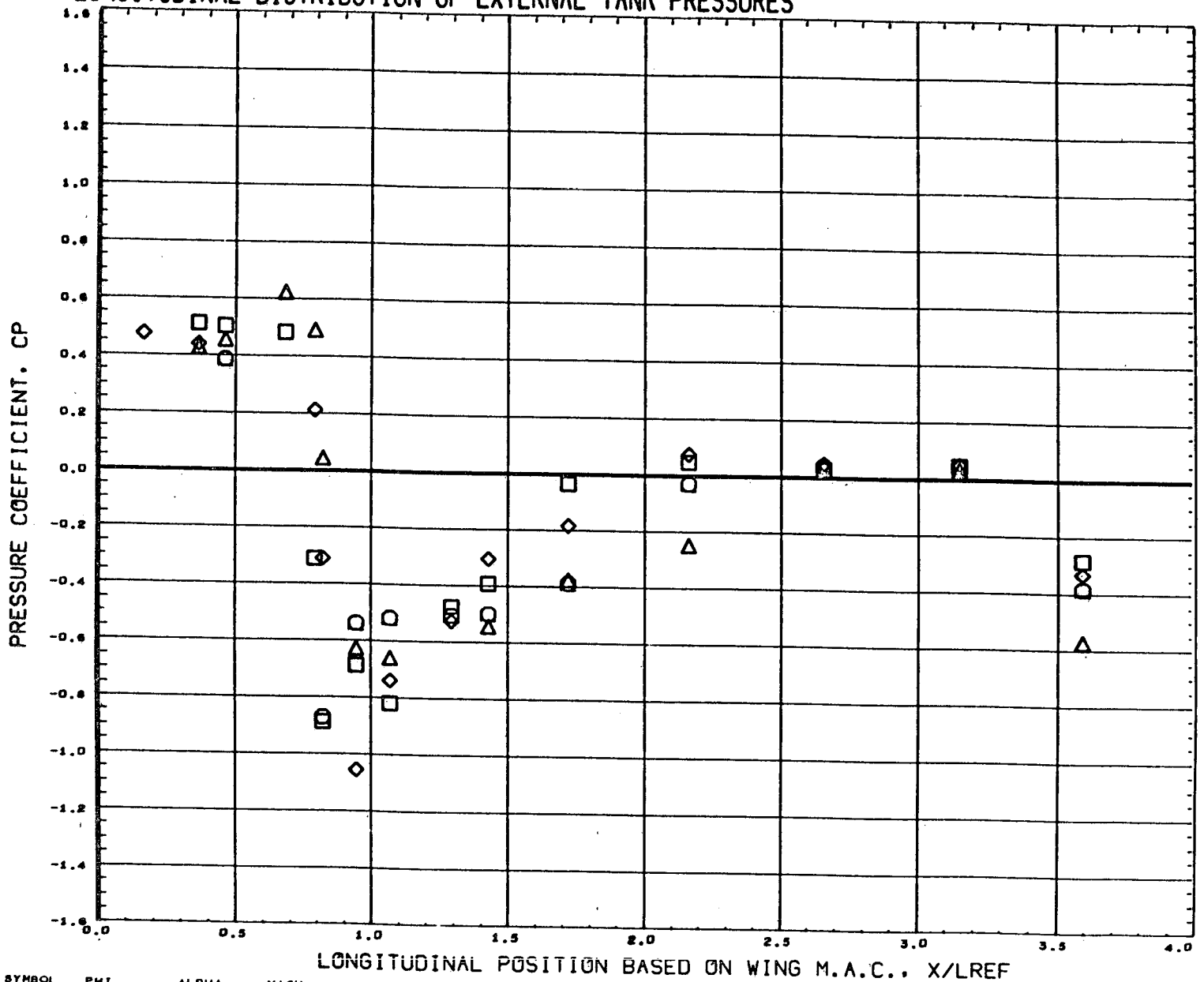
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	0.950	BETA	0.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 163

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 60.000 10.000 0.950
 △ 75.000
 ◇ 90.000
 □ 106.000

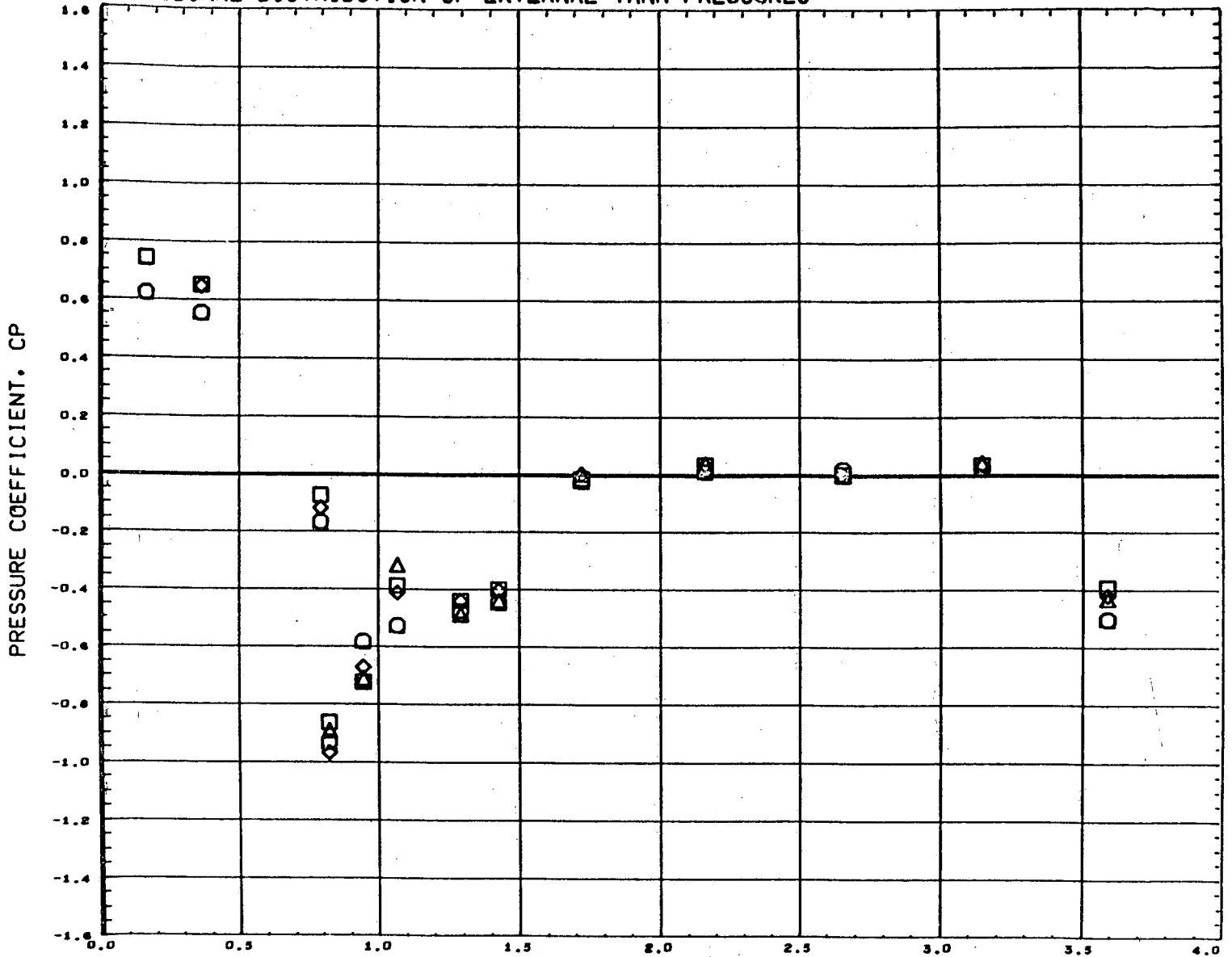
PARAMETRIC VALUES
 BETA 0.000 ORBINC 1.500
 SRBCAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 164

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

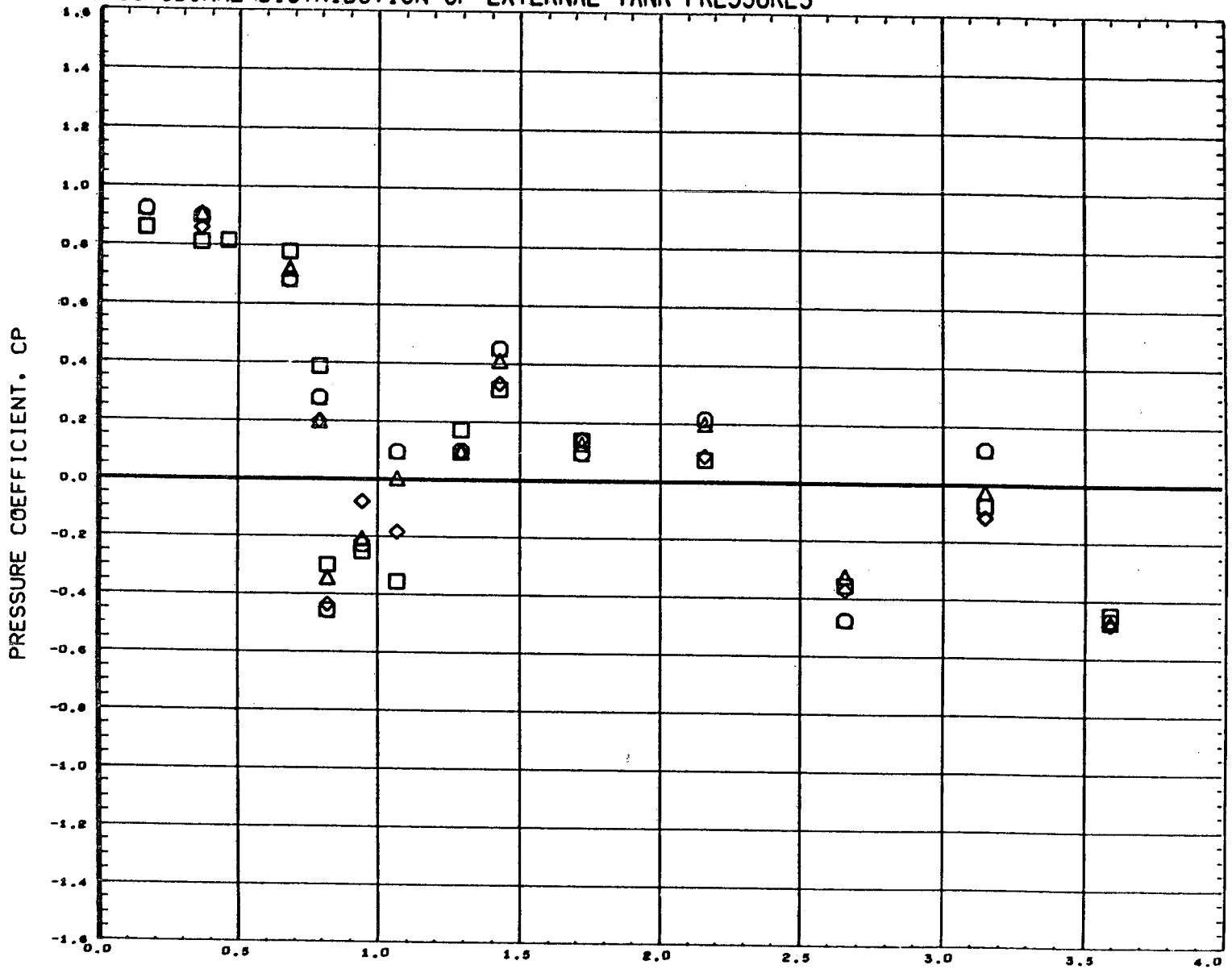


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126,000	10,000	0.950	BETA	0.000 ORBINC - 1.500
△	144,000			SRBGAP	0.025
◇	162,000				
□	180,000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

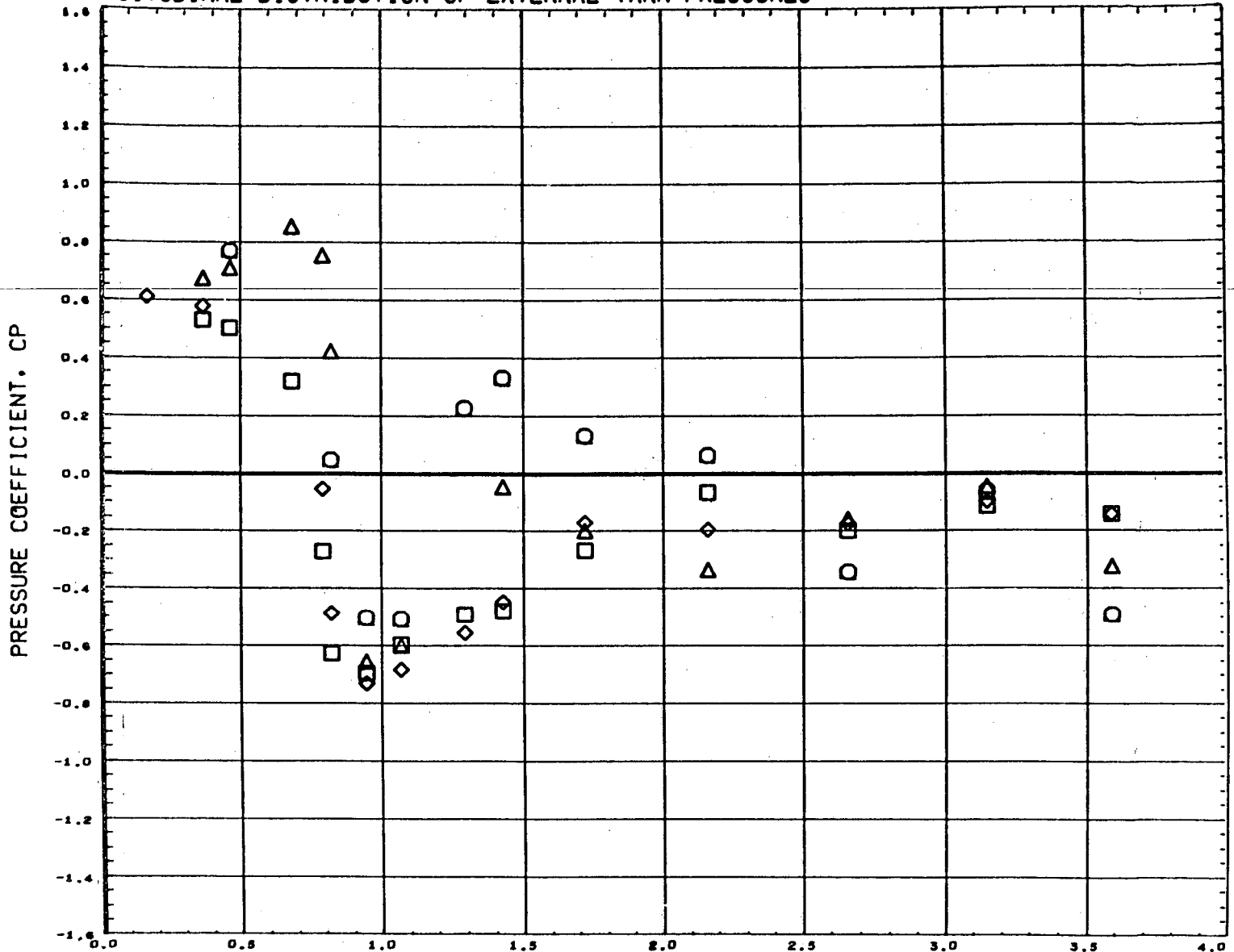


SYMBOL PHI ALPHA MACH
 ○ 0.000 - 10.000 1.200
 △ 15.000
 ◇ 30.000
 □ 45.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

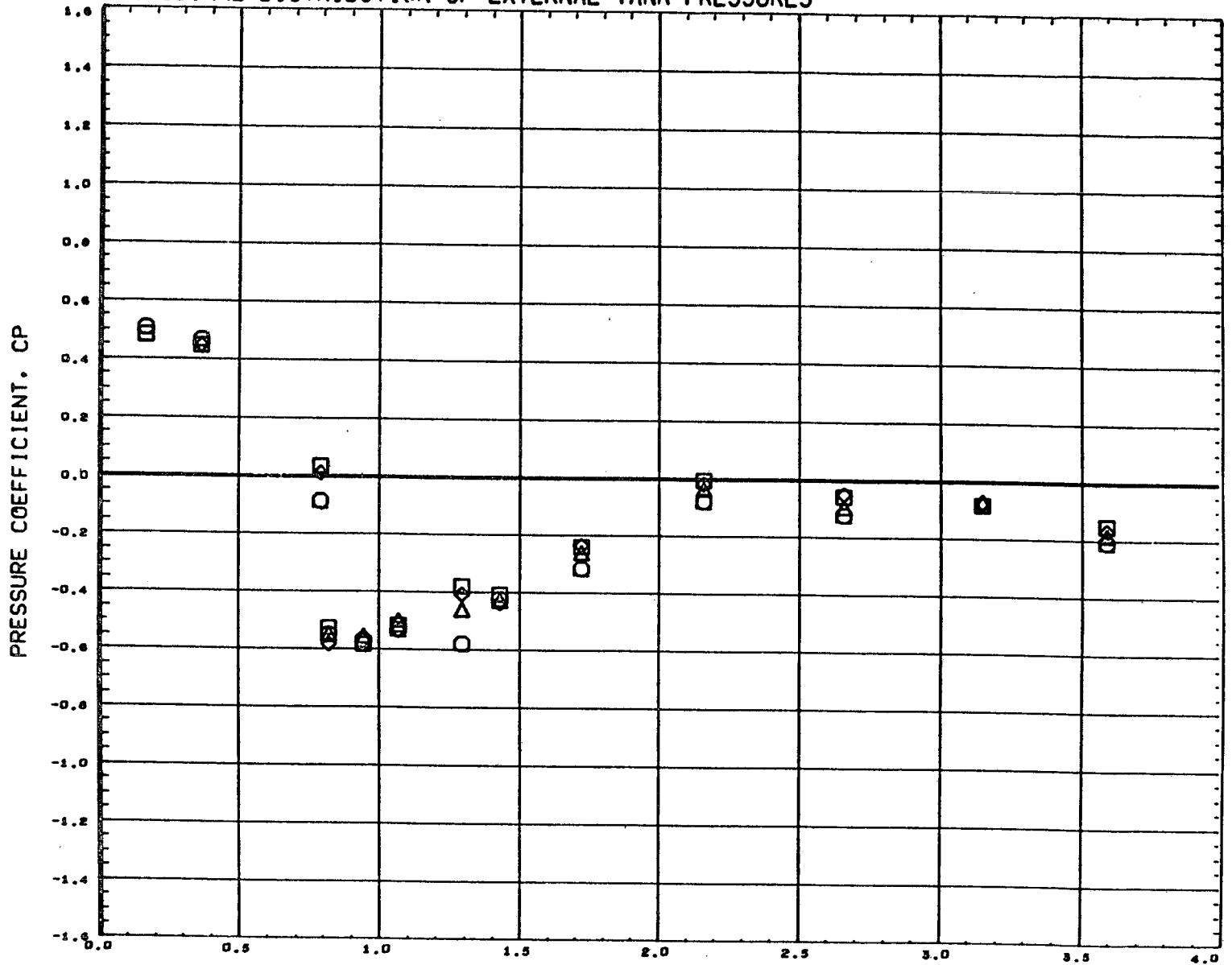
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	- 10.000	1.200	BETA	0.000 ORBINC - 1.500
△	75.000			SRBGAP	0.025
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	- 10,000	1,200
△	144,000		
◇	162,000		
□	160,000		

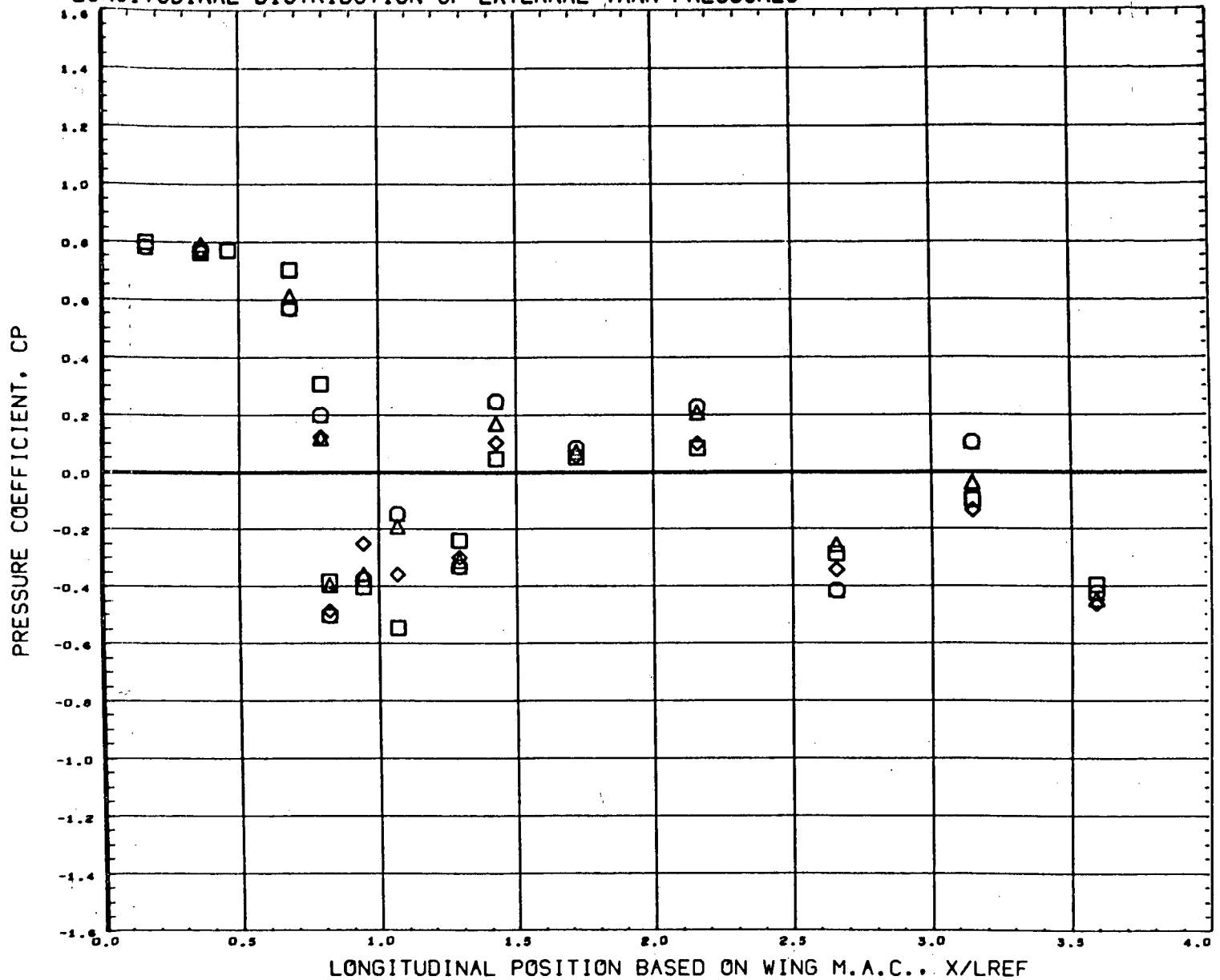
PARAMETRIC VALUES	
BETA	0,000 ORBINC - 1,500
SRBGAP	0,025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 168

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



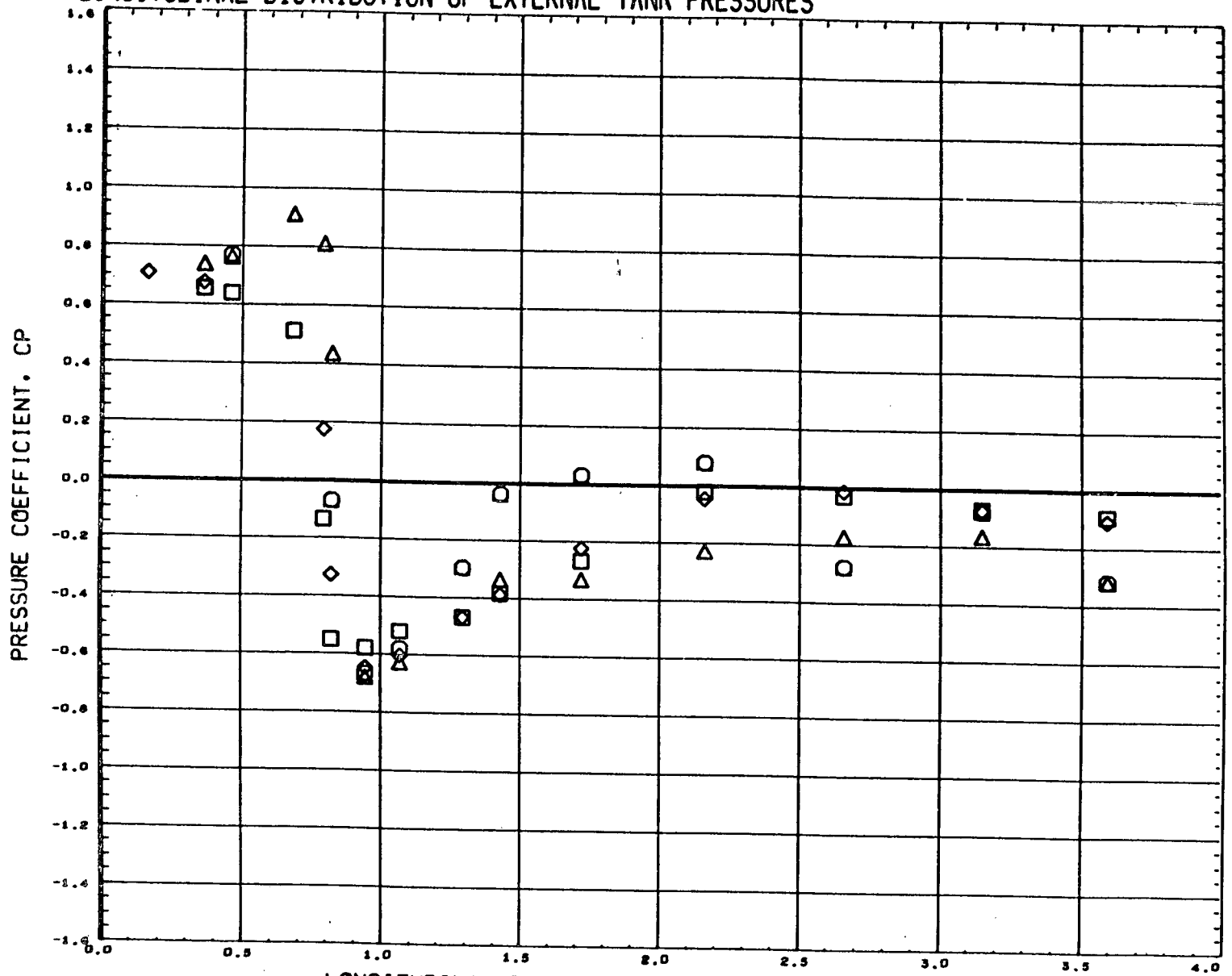
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	1.200	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 169

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	- 4.000	1.200
△	75.000		
◇	90.000		
□	100.000		

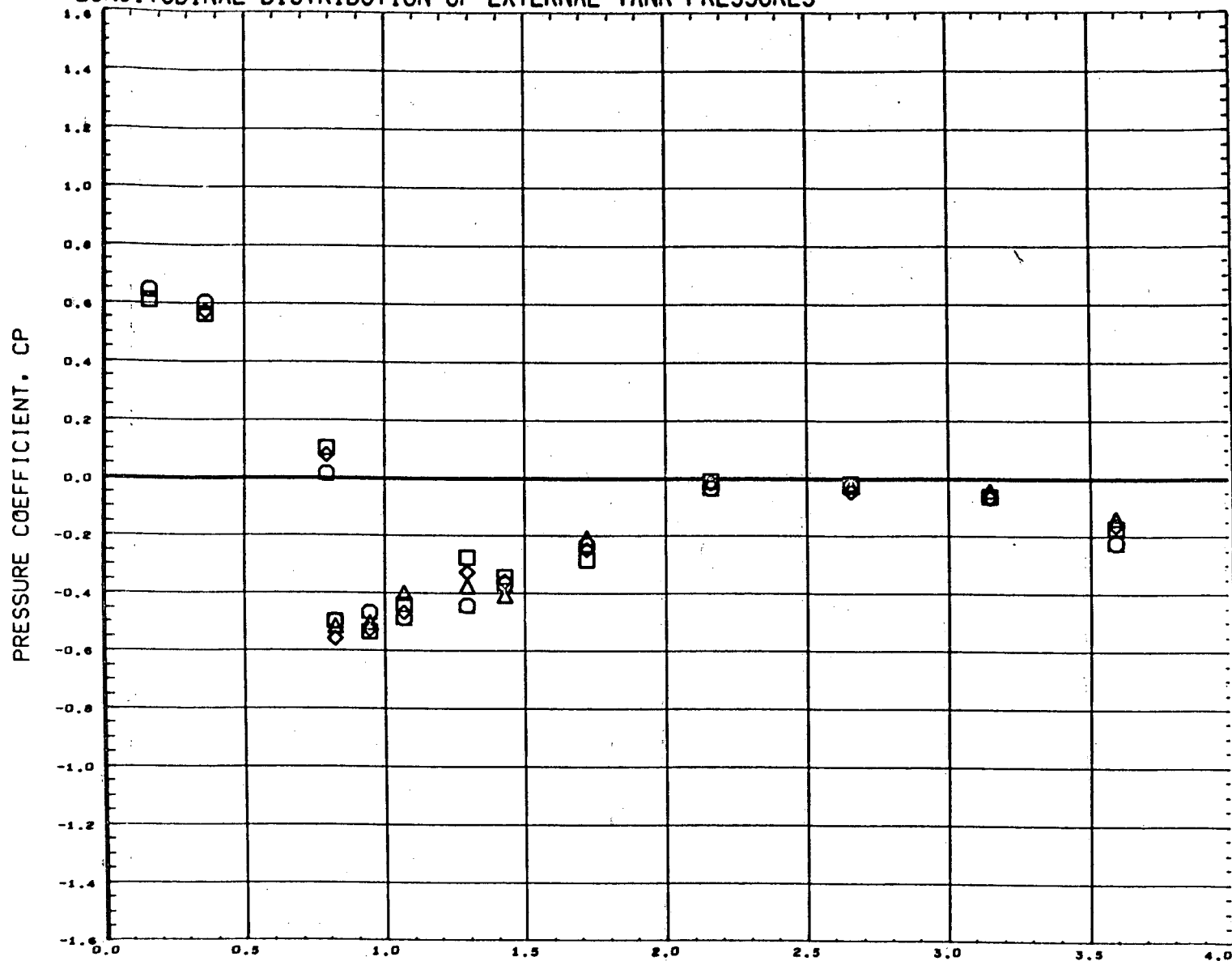
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 170

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	- 4.000	1.200
△	144,000		
◇	162,000		
□	180,000		

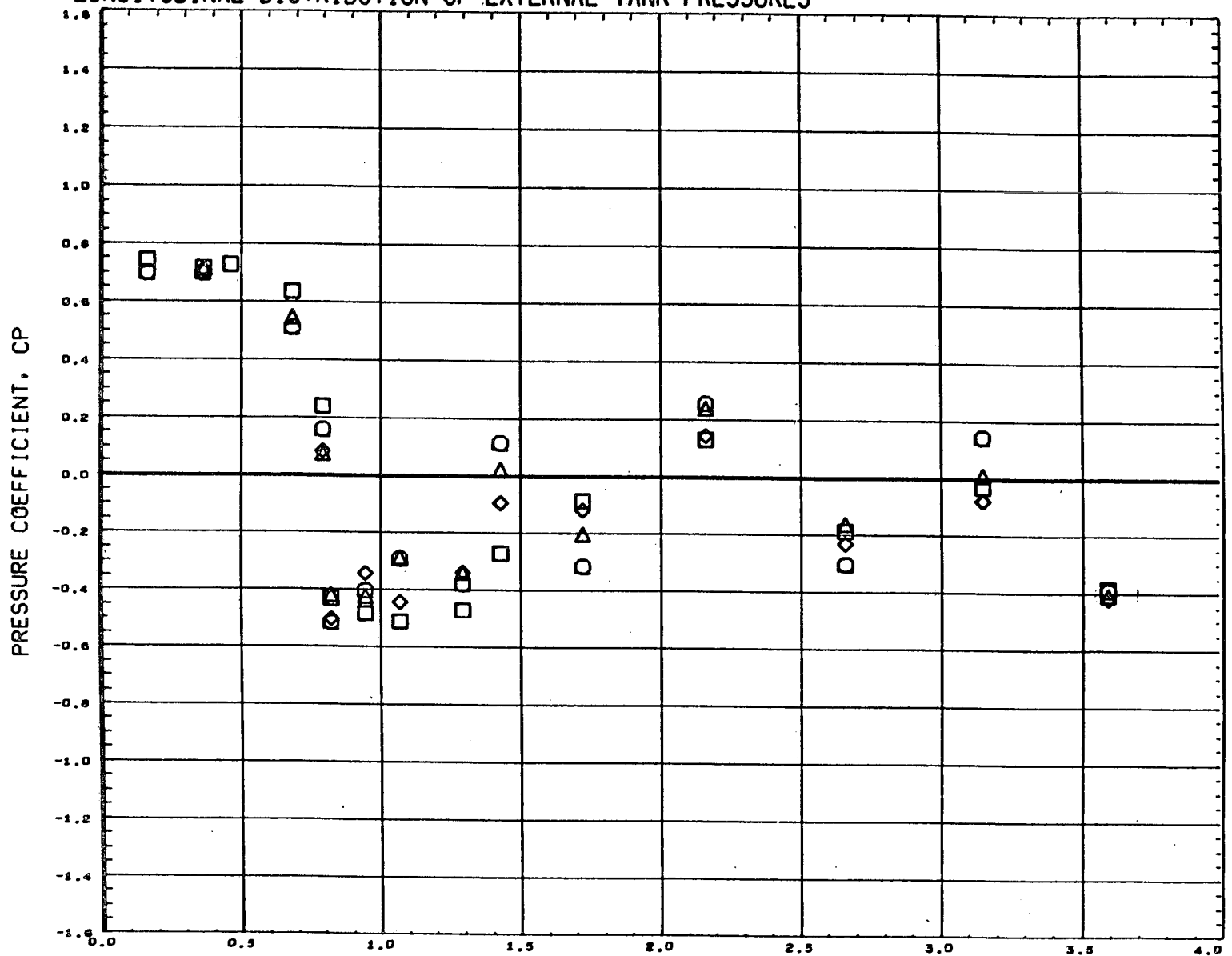
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 171

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



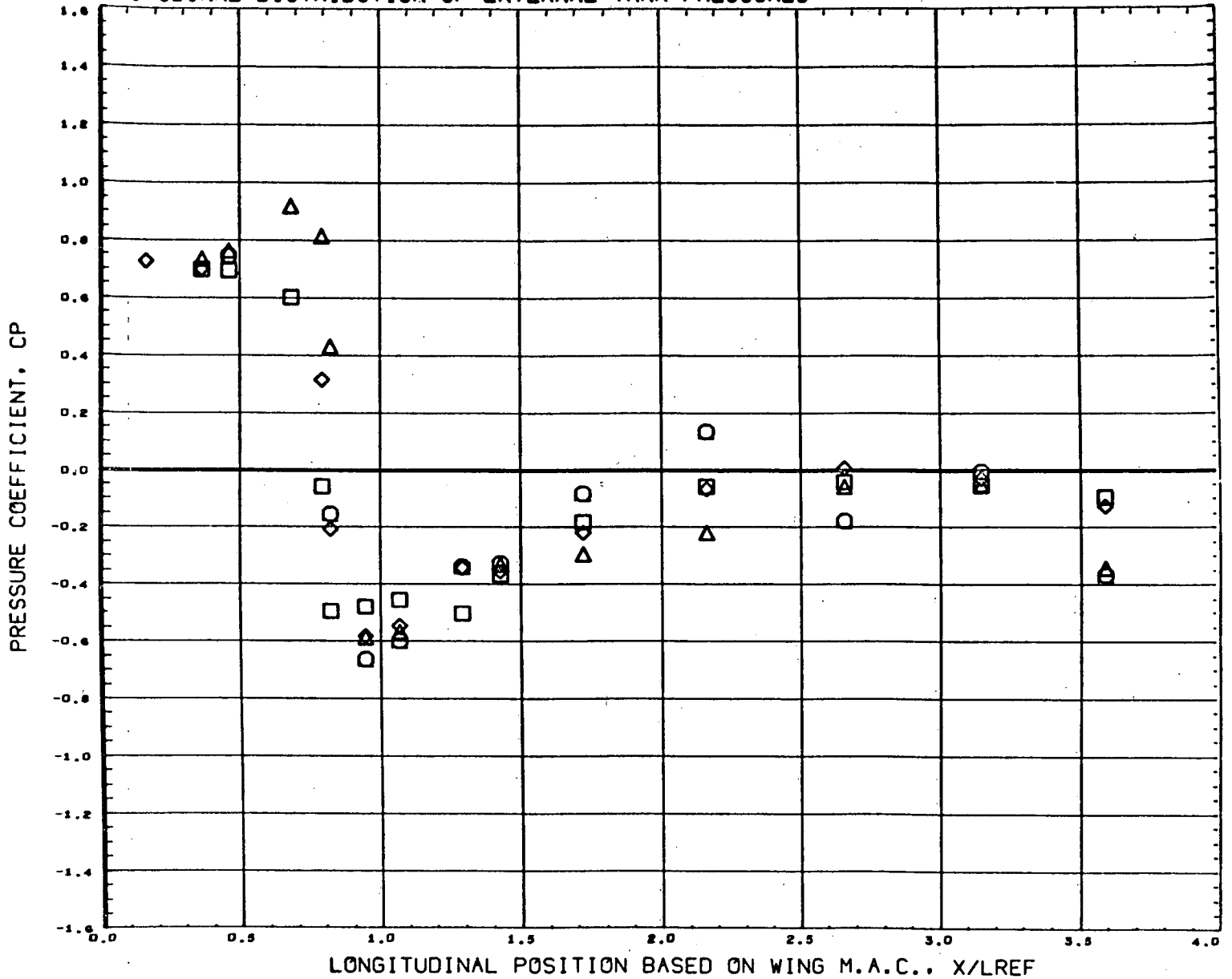
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	0.000	1.200
△	15.000		
◇	30.000		
□	45.000		

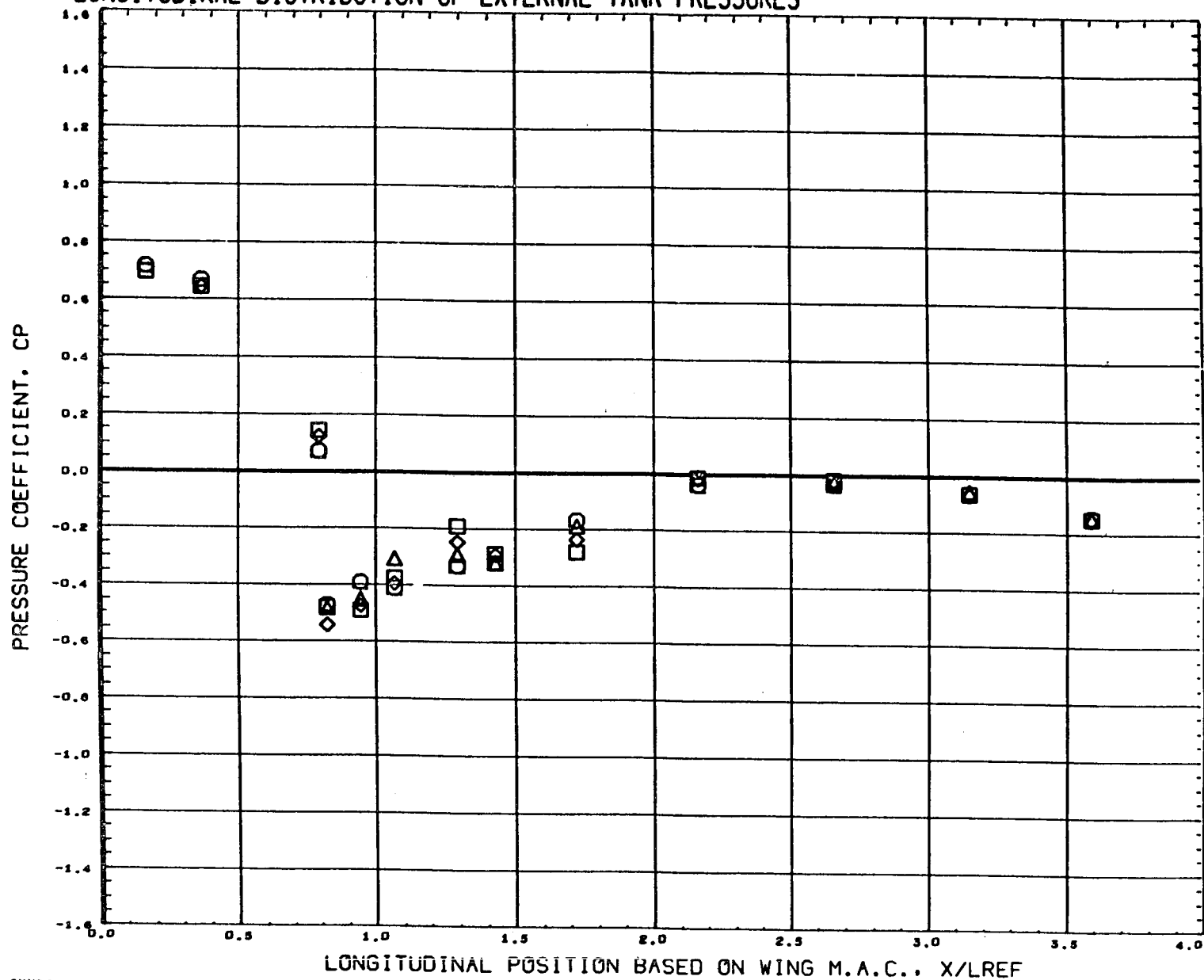
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 126.000 0.000 1.200
 △ 144.000
 ◇ 162.000
 □ 180.000

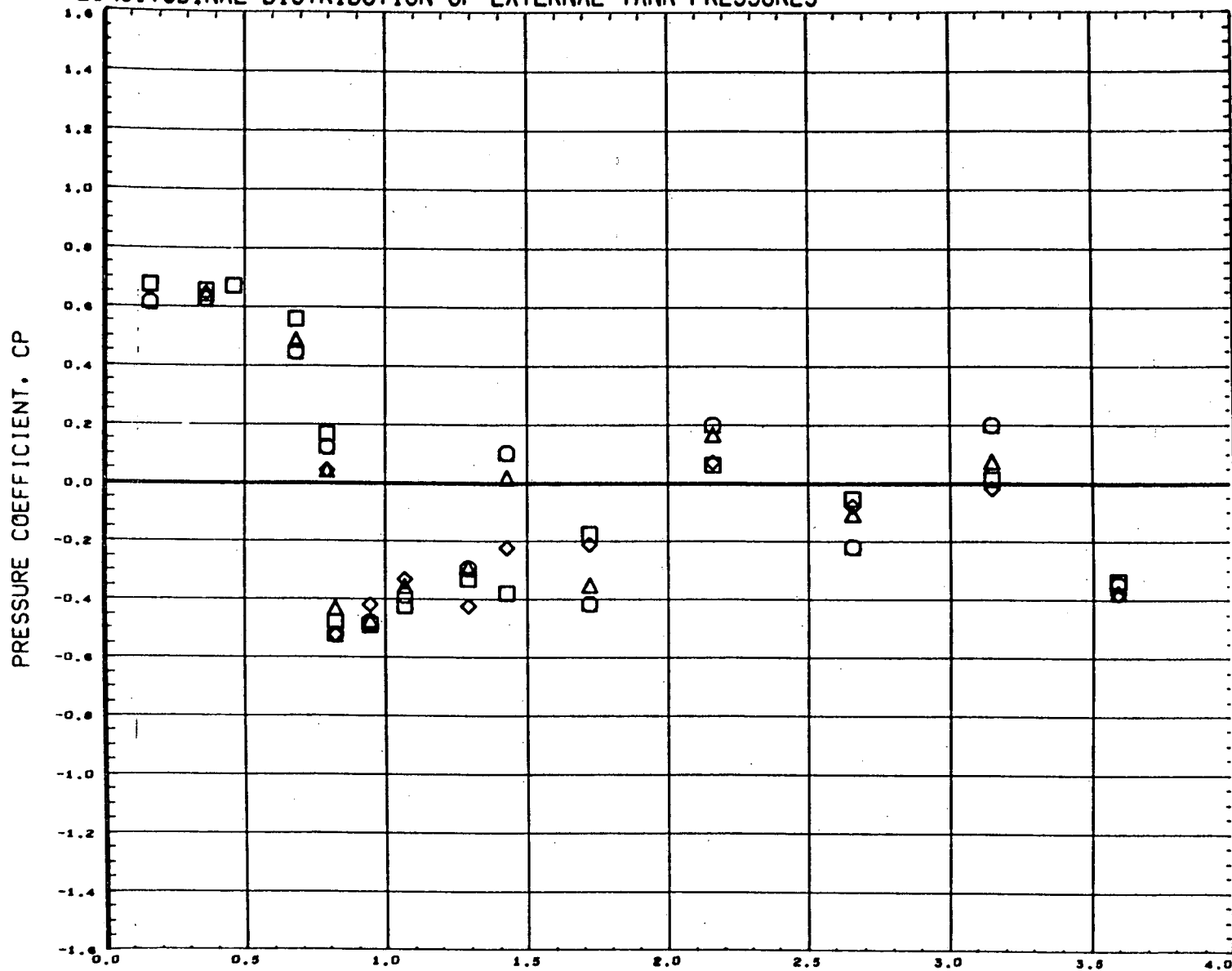
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 174

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	4.000	1.200
△	15.000		
◇	30.000		
□	45.000		

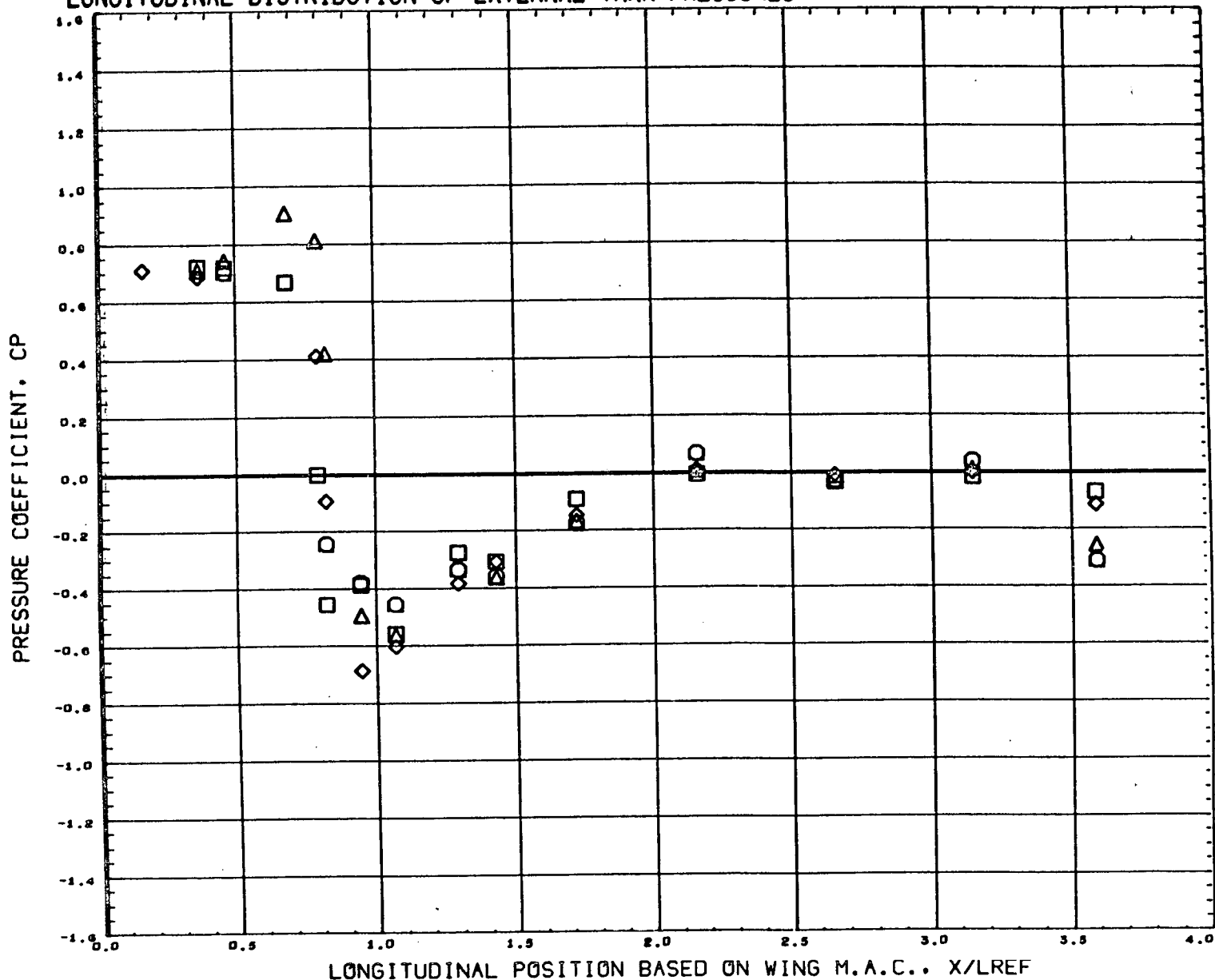
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 175

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60.000	4.000	1.200
△	75.000		
◇	90.000		
□	106.000		

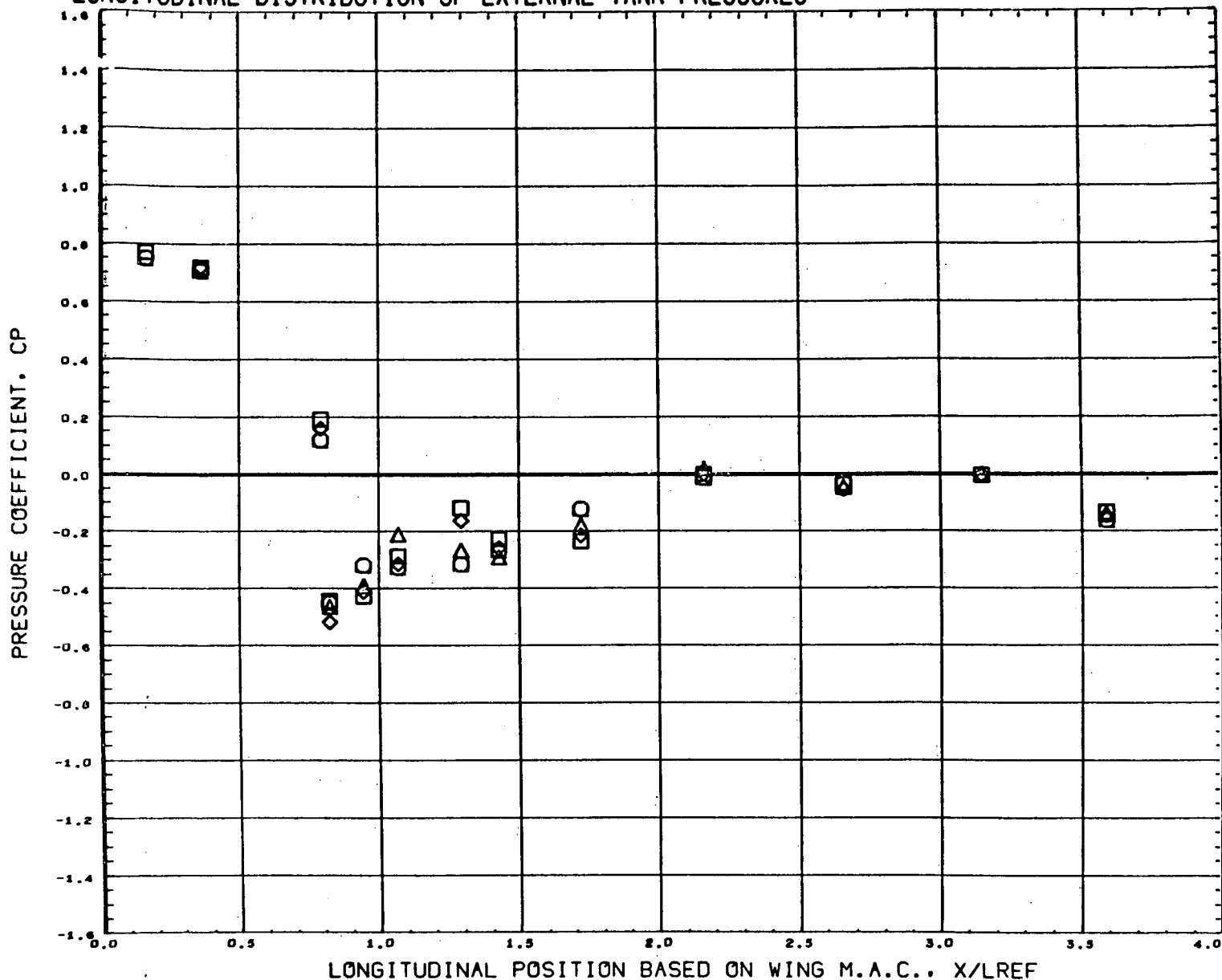
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 176

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL
 ○
 △
 ◇
 □

126,000
 144,000
 162,000
 180,000

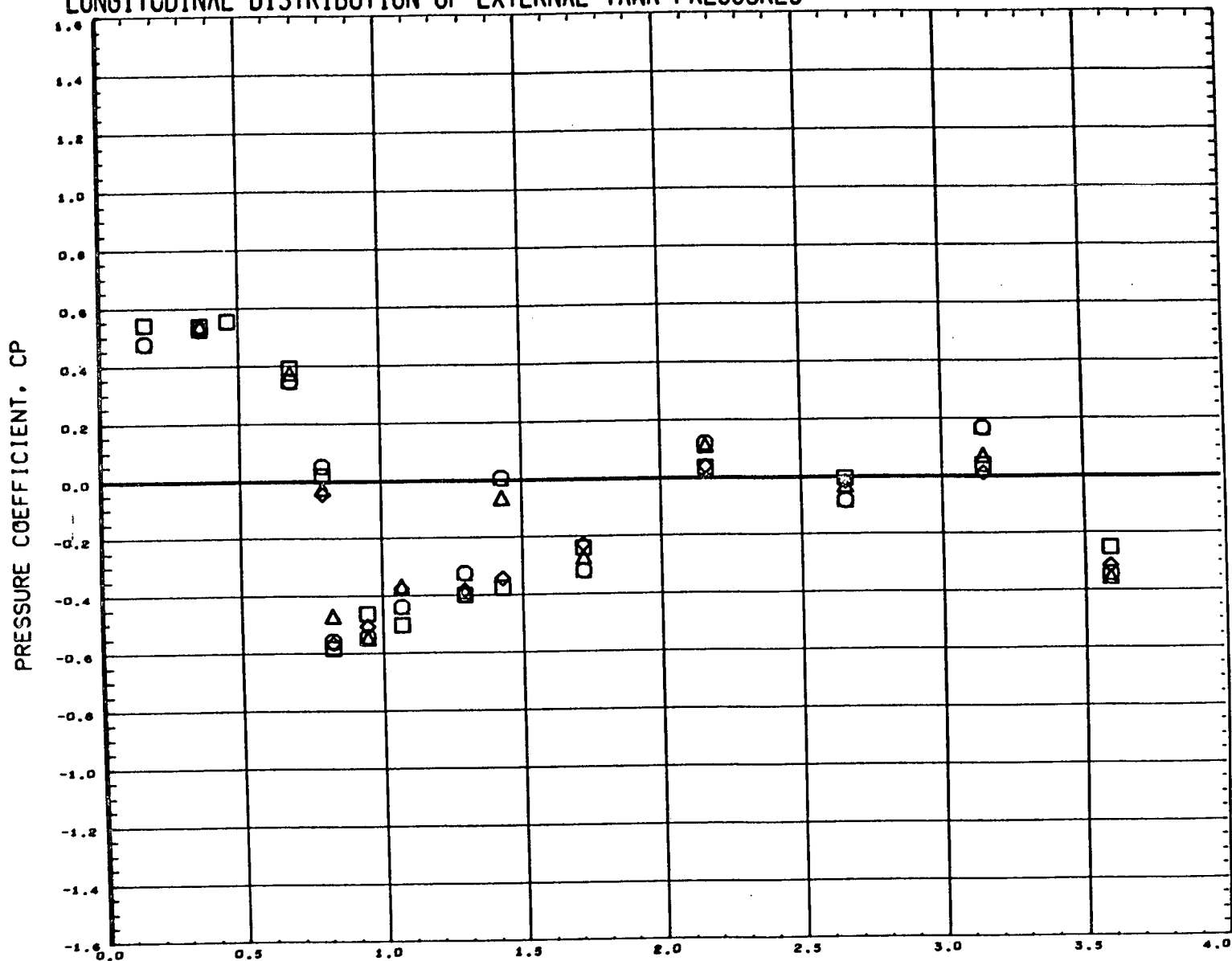
ALPHA 4.000
 MACH 1.200

LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	10.000	1.200
△	15.000		
◇	30.000		
□	45.000		

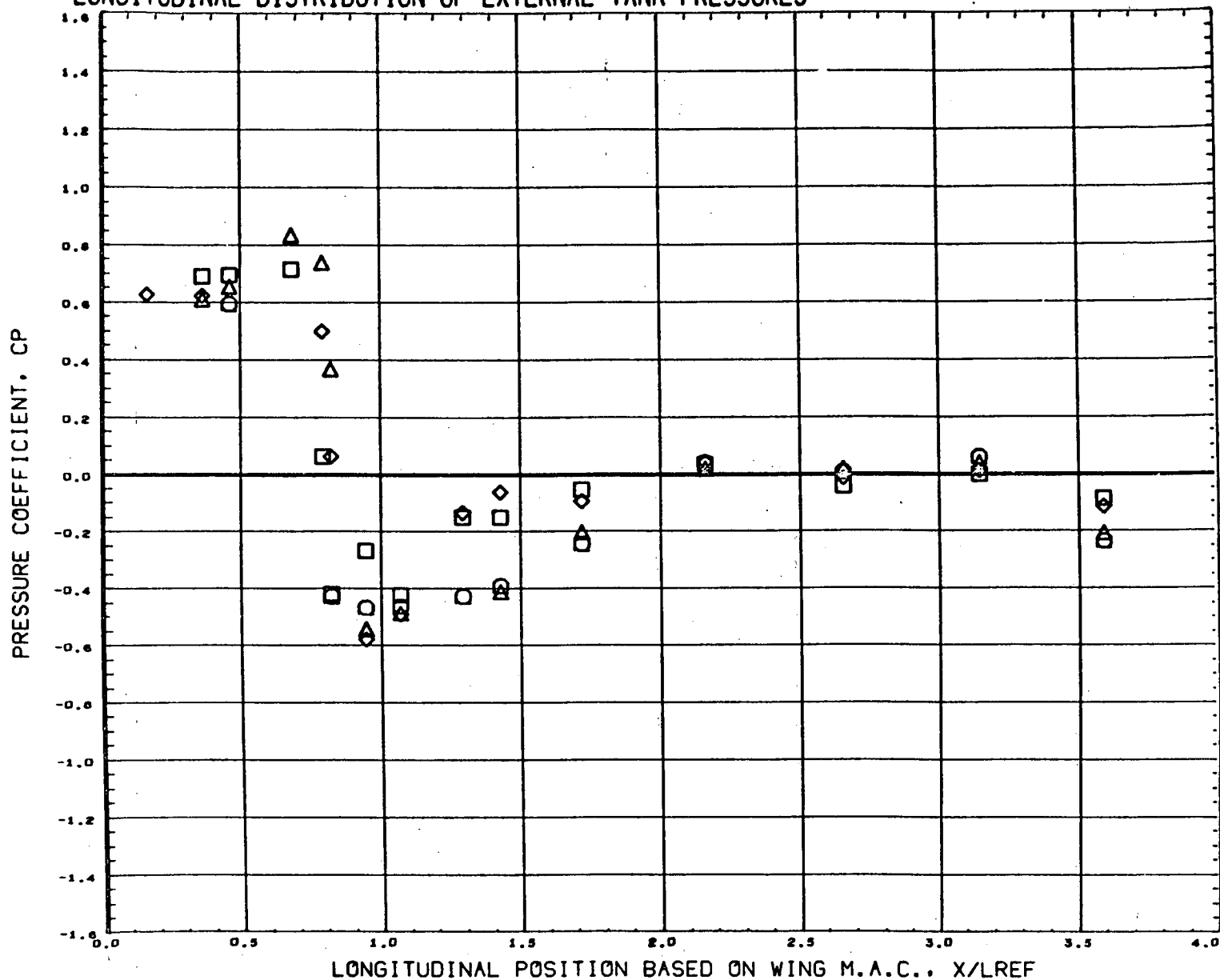
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 178

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.200
△	75.000		
◇	90.000		
□	100.000		

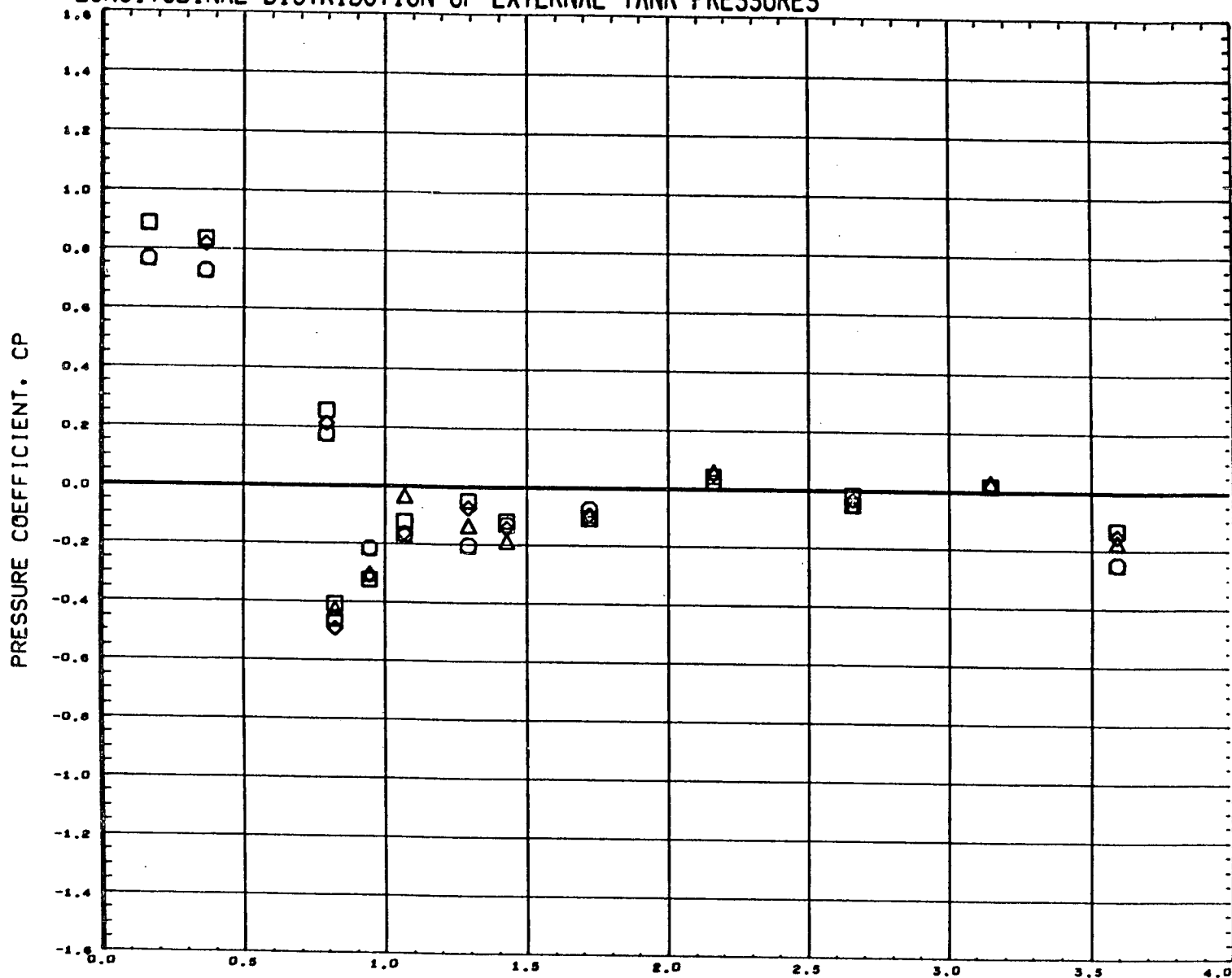
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 179

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	10.000	1.200
△	144.000		
◇	162.000		
□	160.000		

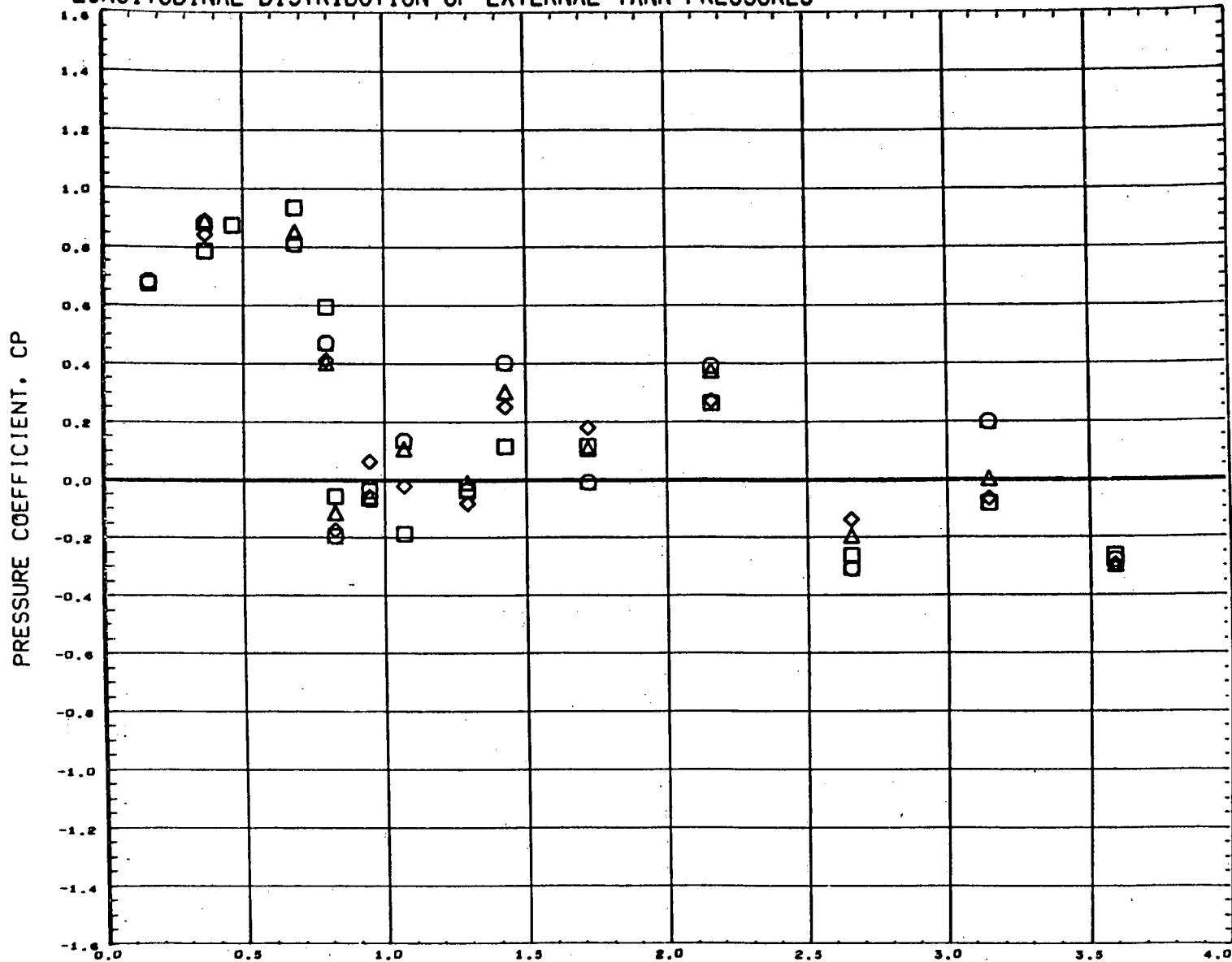
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 180

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	10.000	1.460
△	15.000		
◇	30.000		
□	45.000		

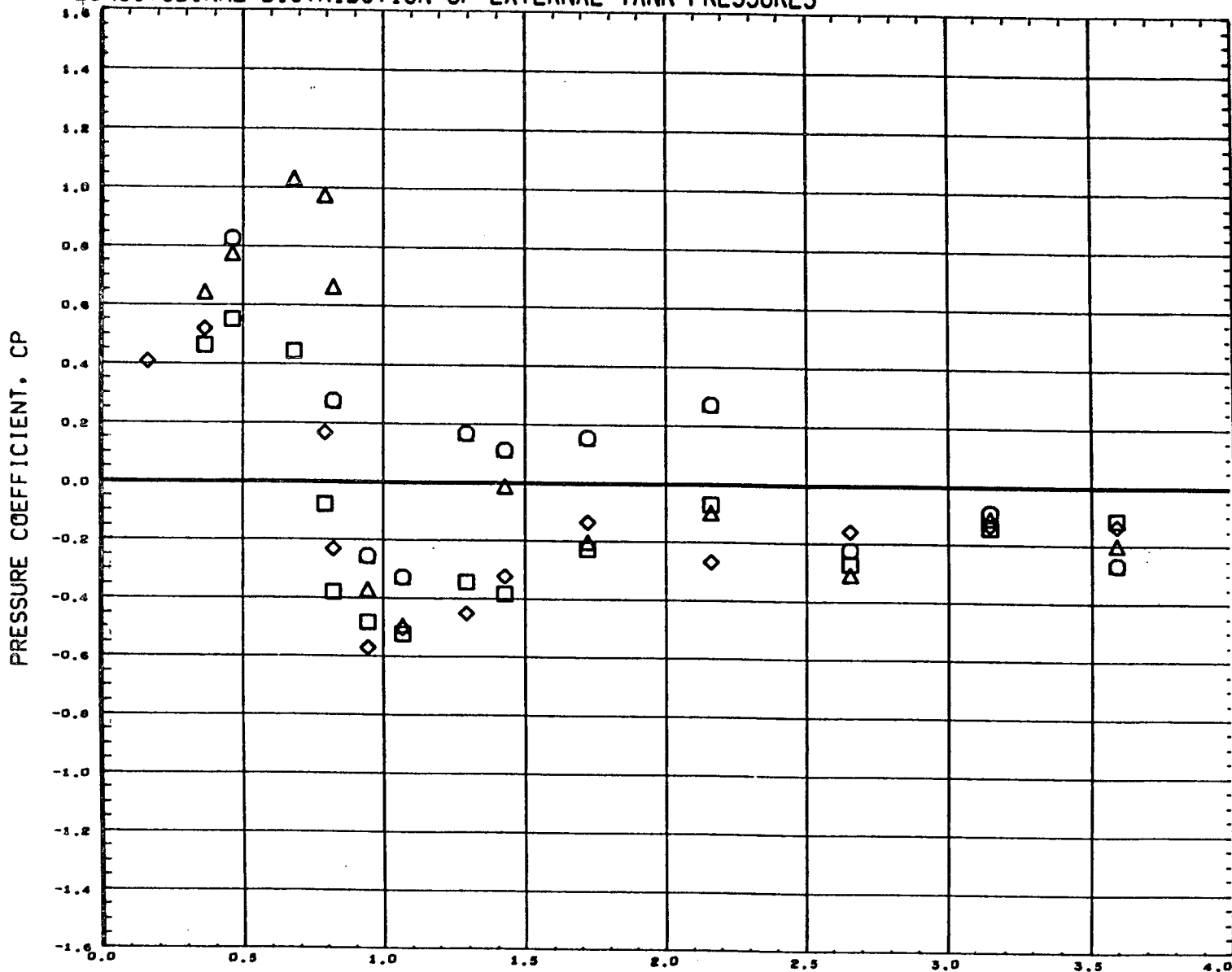
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 181

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
△	60,000	- 10,000	1.460
◇	75,000		
□	90,000		
○	100,000		

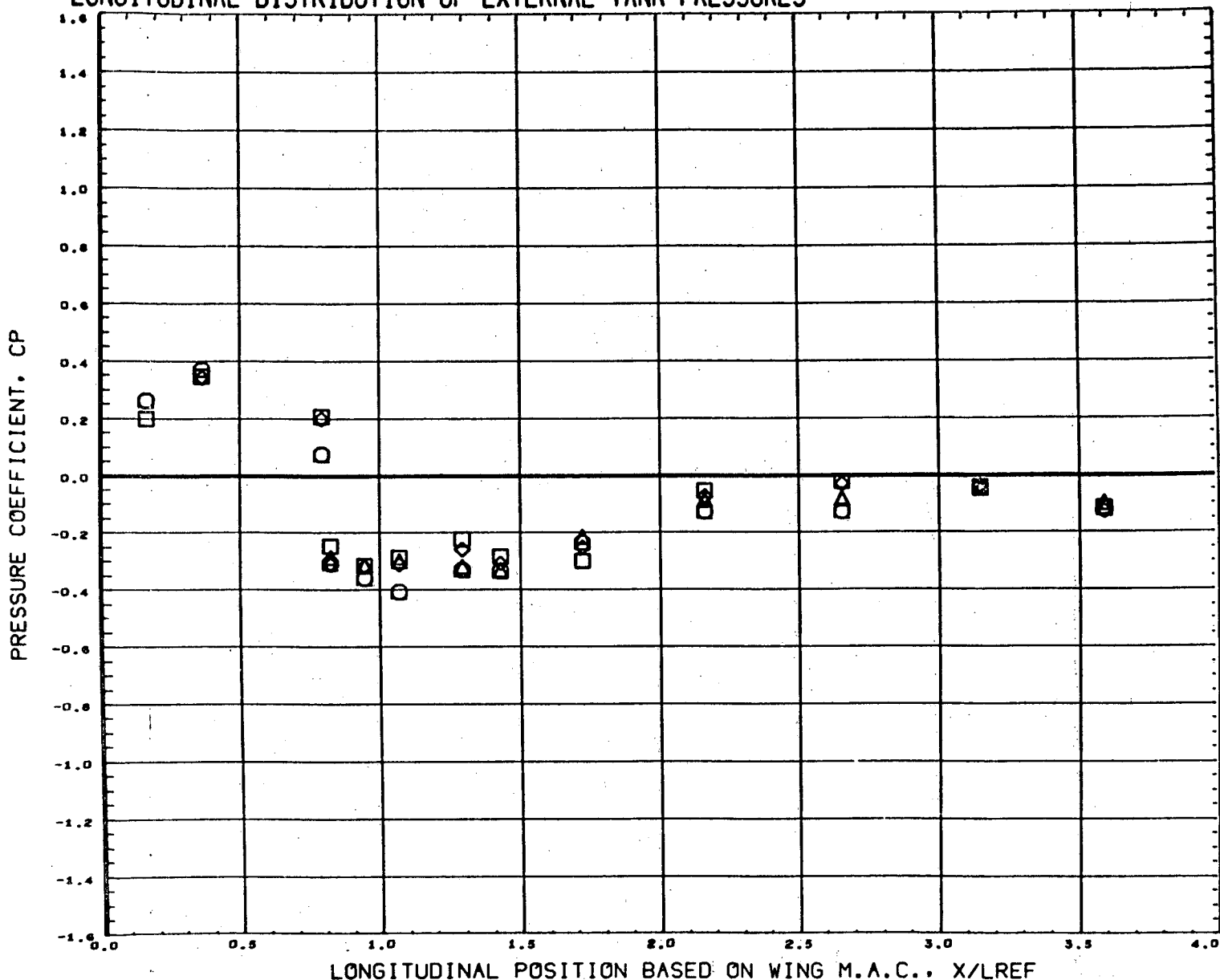
PARAMETRIC VALUES	
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SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 182

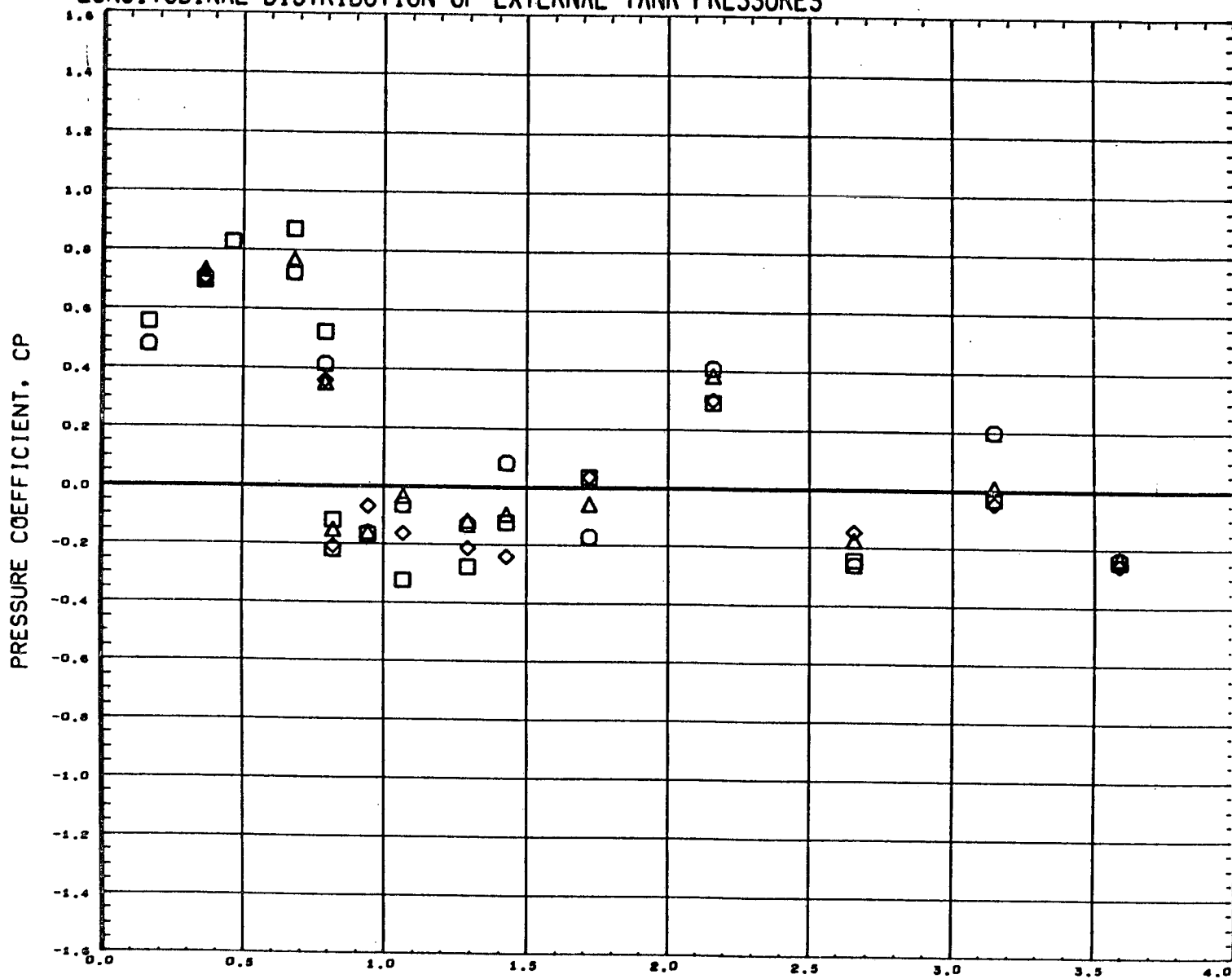
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126,000	- 10,000	1.460	BETA	0,000 ORBINC - 1,500
△	144,000			SRBCAP	0,025
◇	162,000				
□	180,000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○
 △
 ◇
 □

PHI
 0.000
 15.000
 30.000
 45.000

ALPHA
 - 4.000

MACH
 1.460

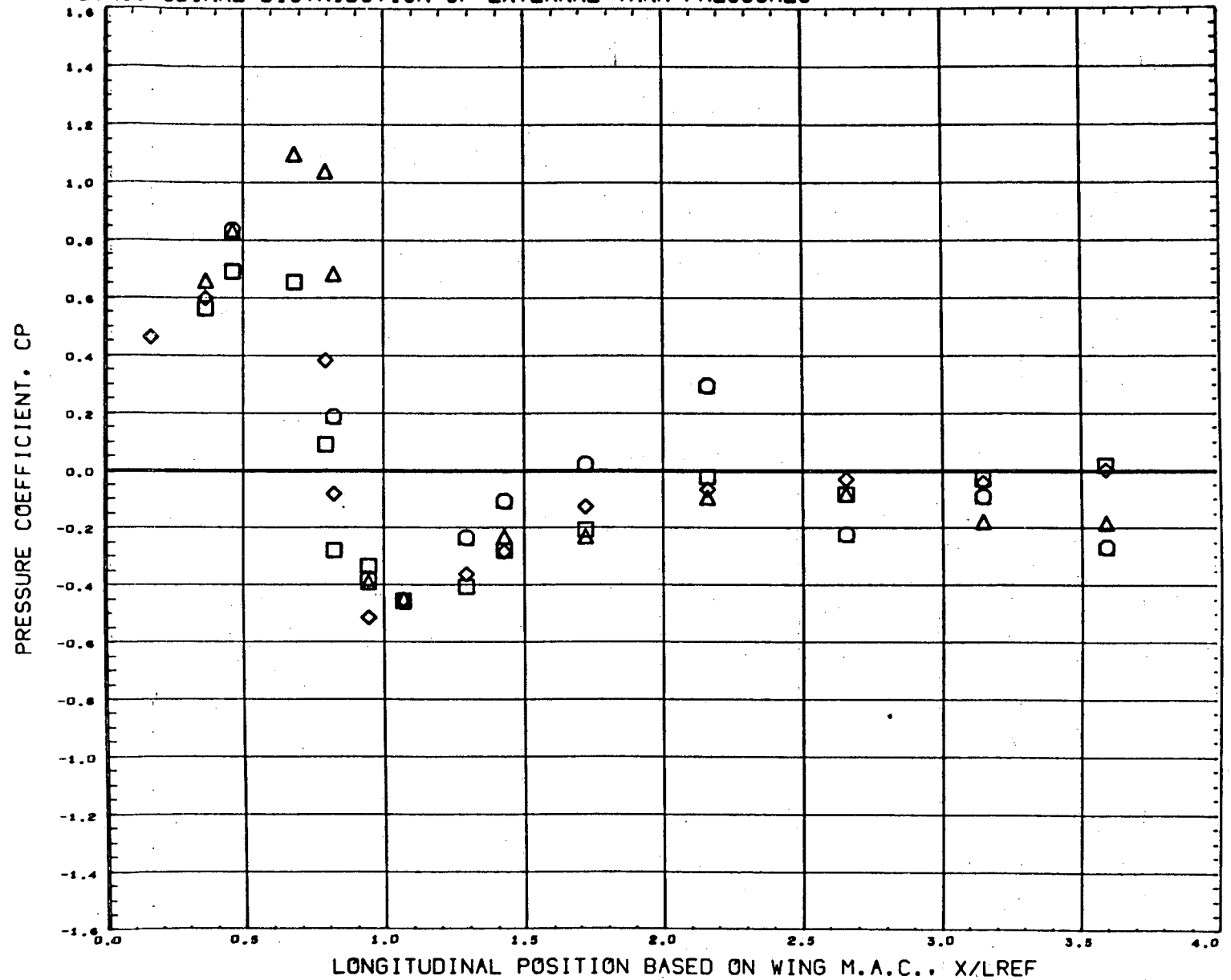
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 184

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60,000	4.000	1.460
△	75,000		
◇	90,000		
□	100,000		

PARAMETRIC VALUES	
BETA	0.000
SRBGAP	0.025
ORBINC	1.500

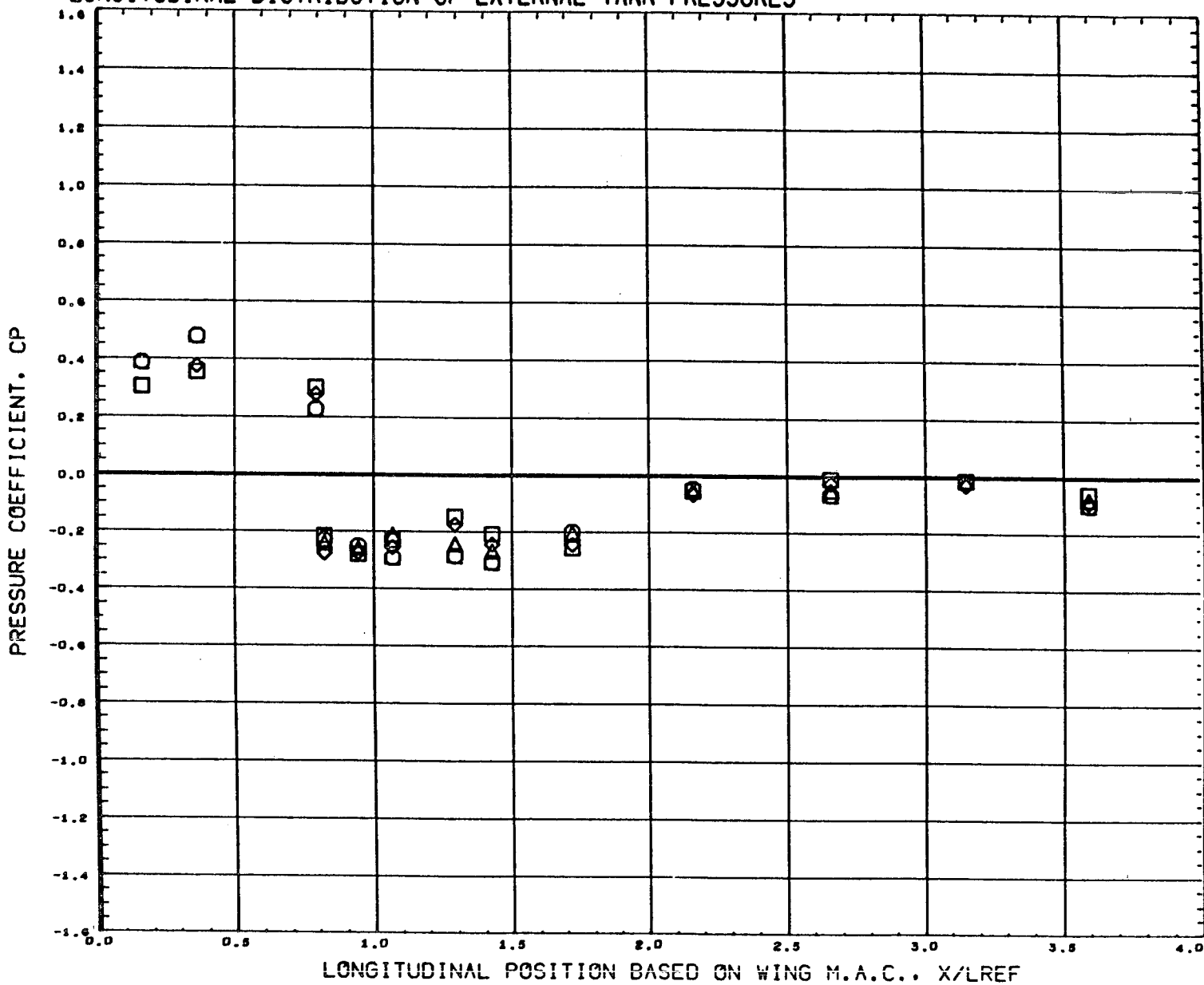
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 185

c

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	- 4.000	1.460
△	144,000		
◇	162,000		
□	180,000		

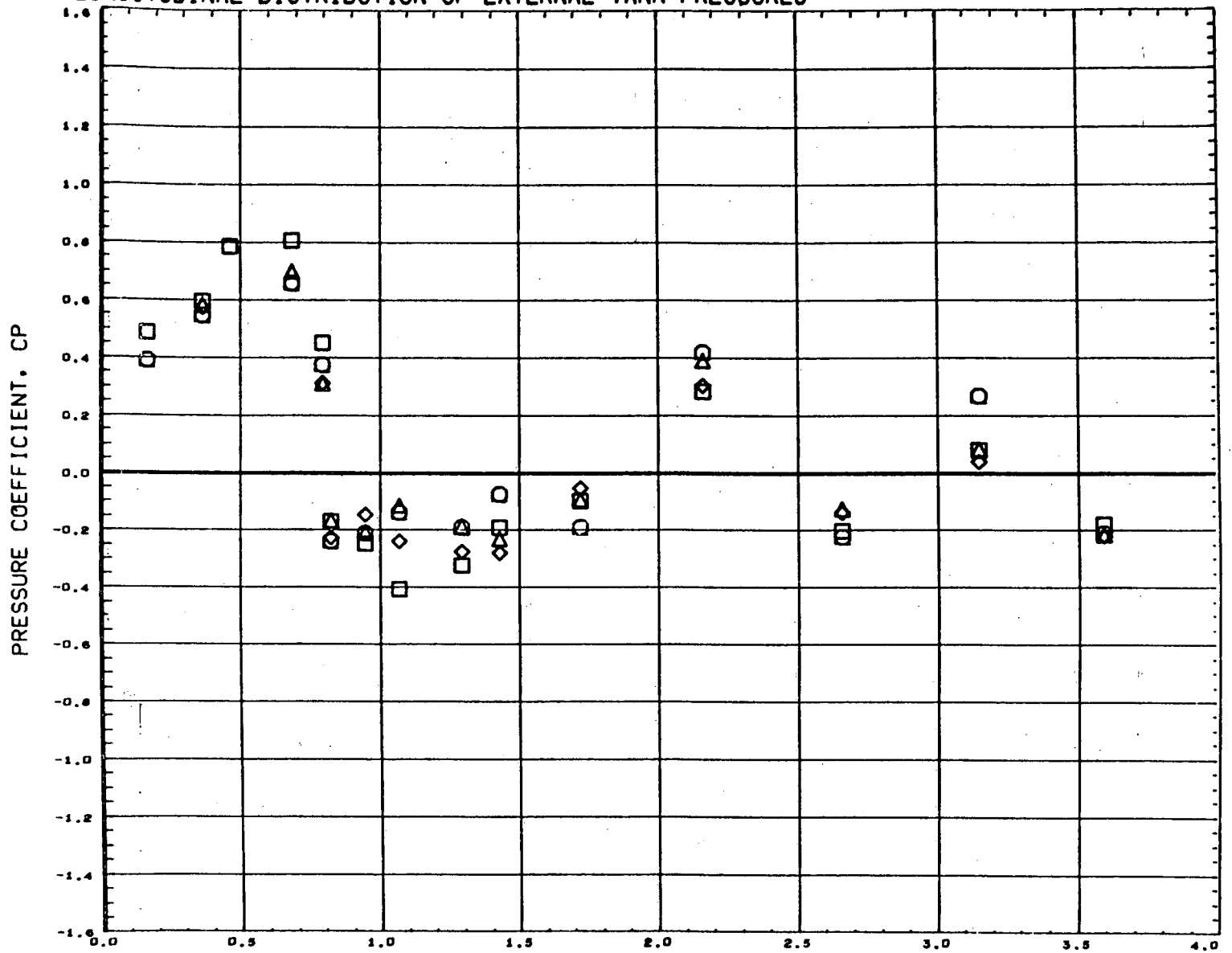
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 186

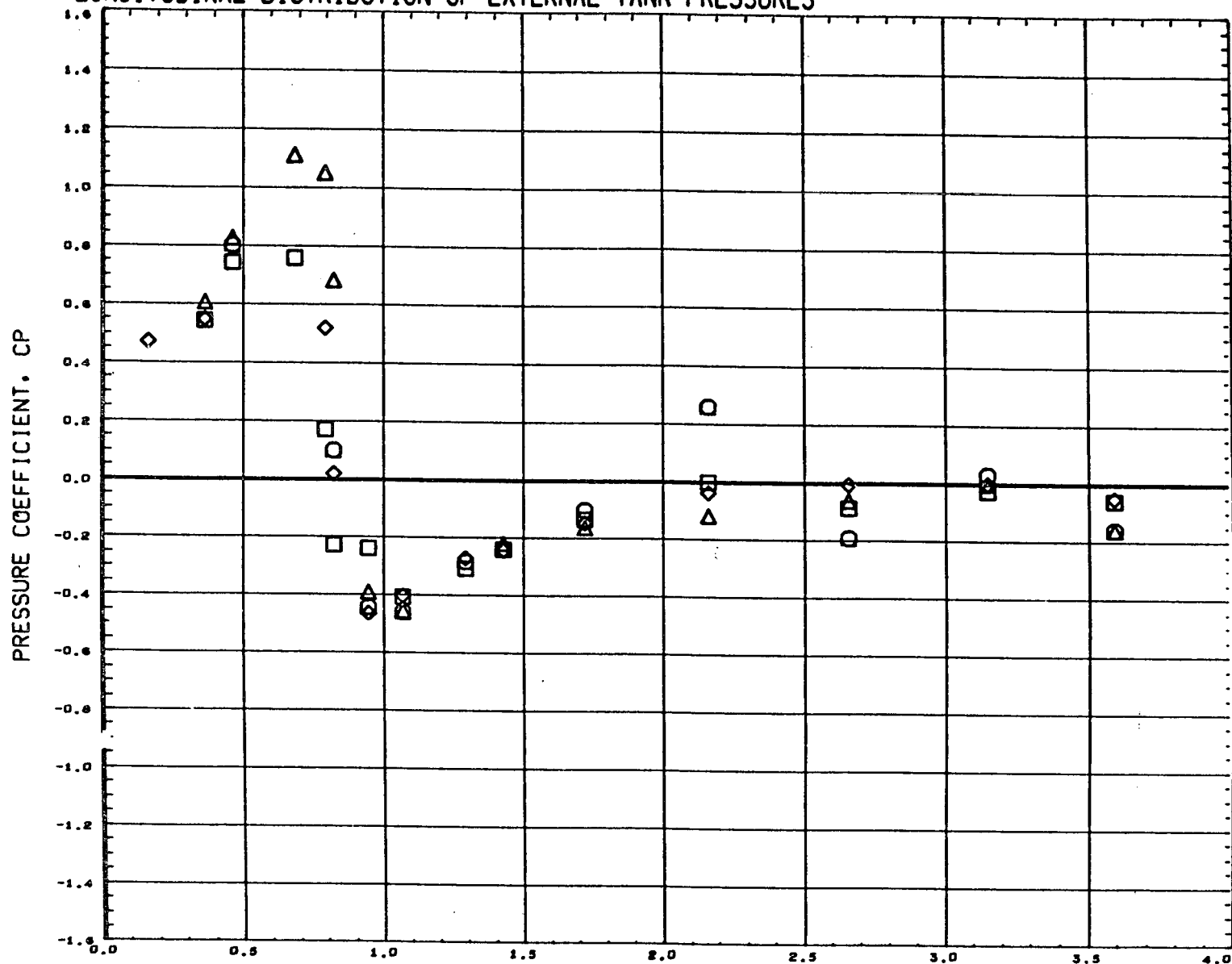
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	1.460	BETA	0.000
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	0.000	1.460
△	75.000		
◇	90.000		
□	105.000		

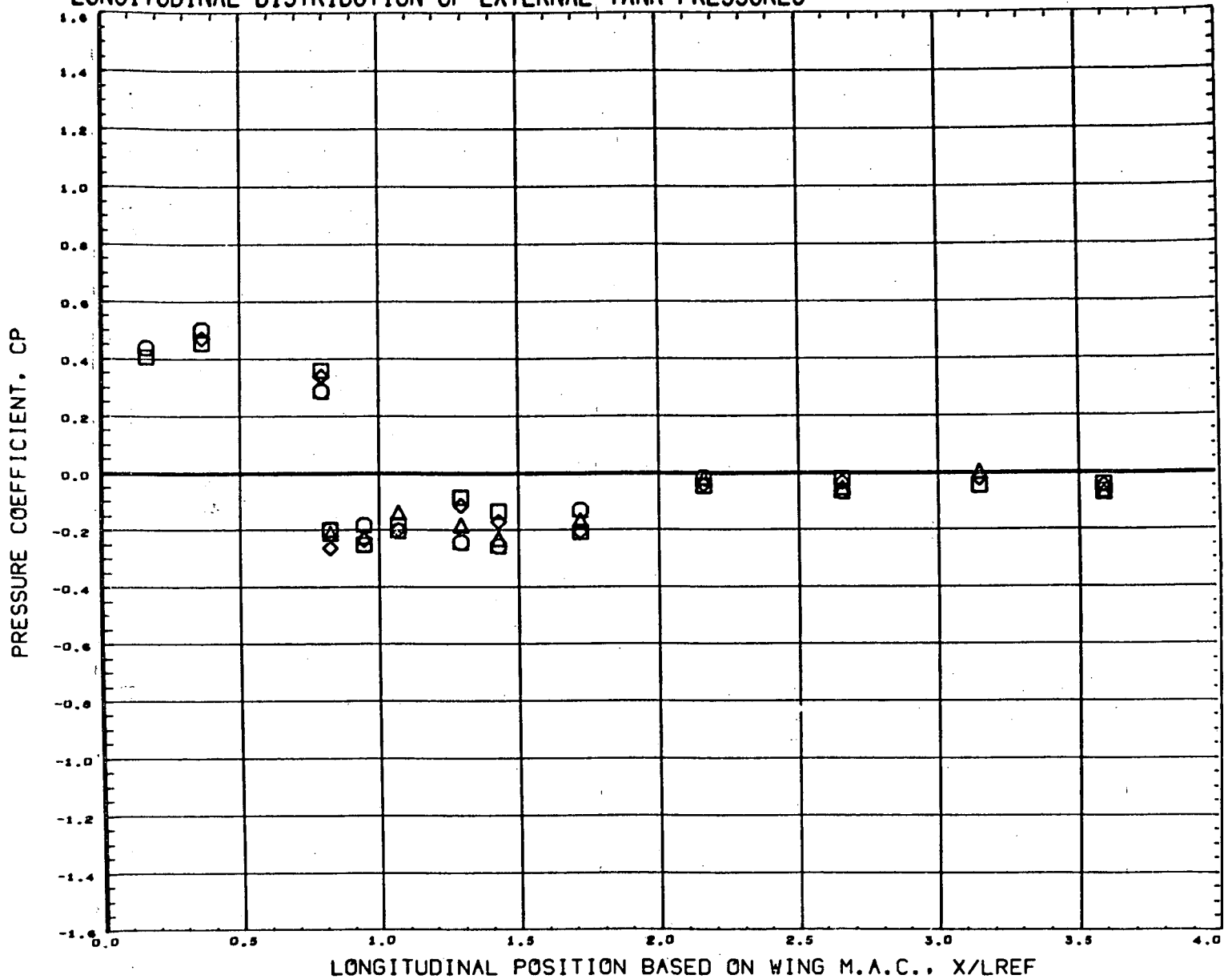
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 188

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

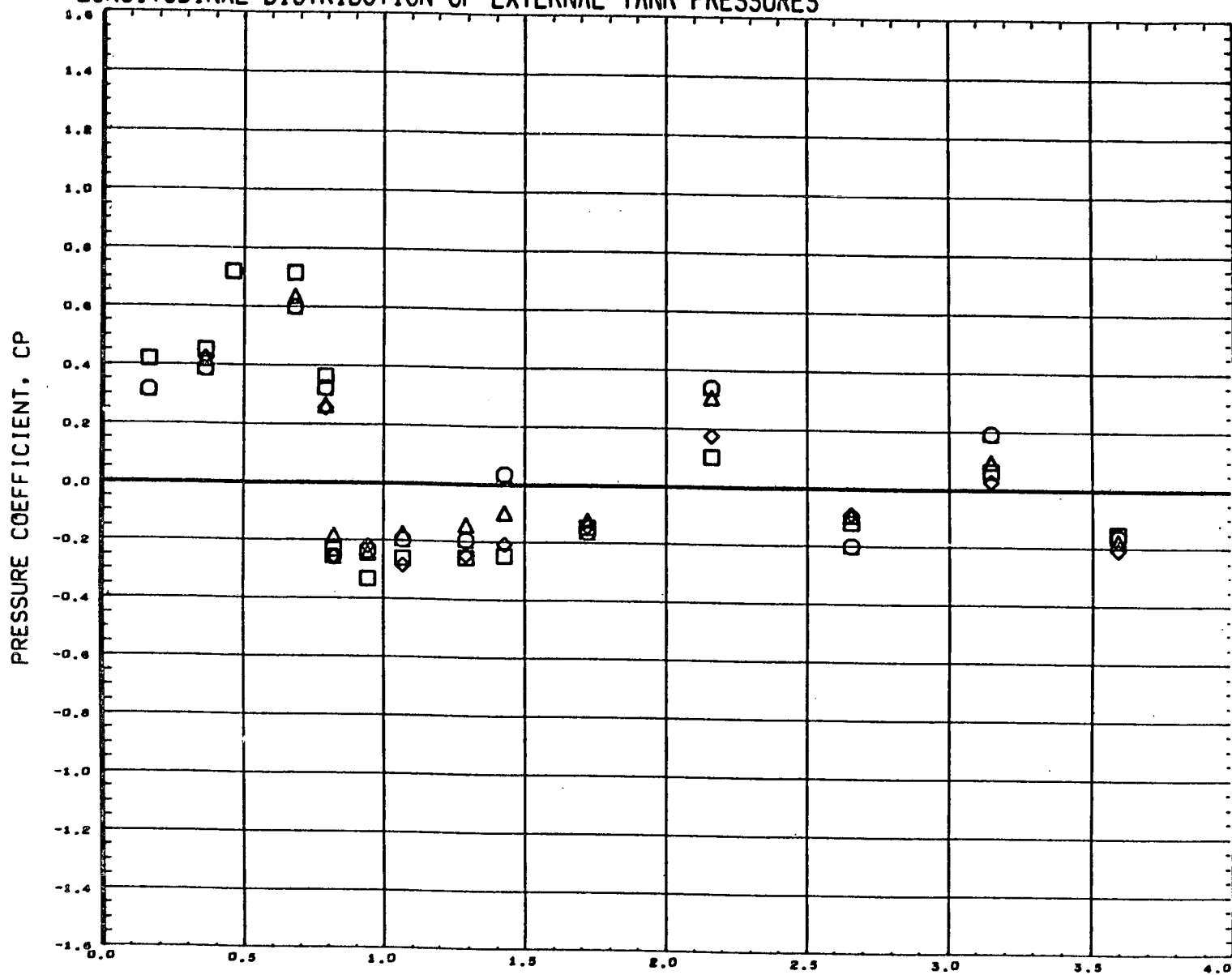


SYMBOL	PHI	ALPHA	MACH
○	126,000	0.000	1.460
△	144,000		
◇	162,000		
□	180,000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	0.000	4.000	1.460
△	15.000		
◇	30.000		
□	45.000		

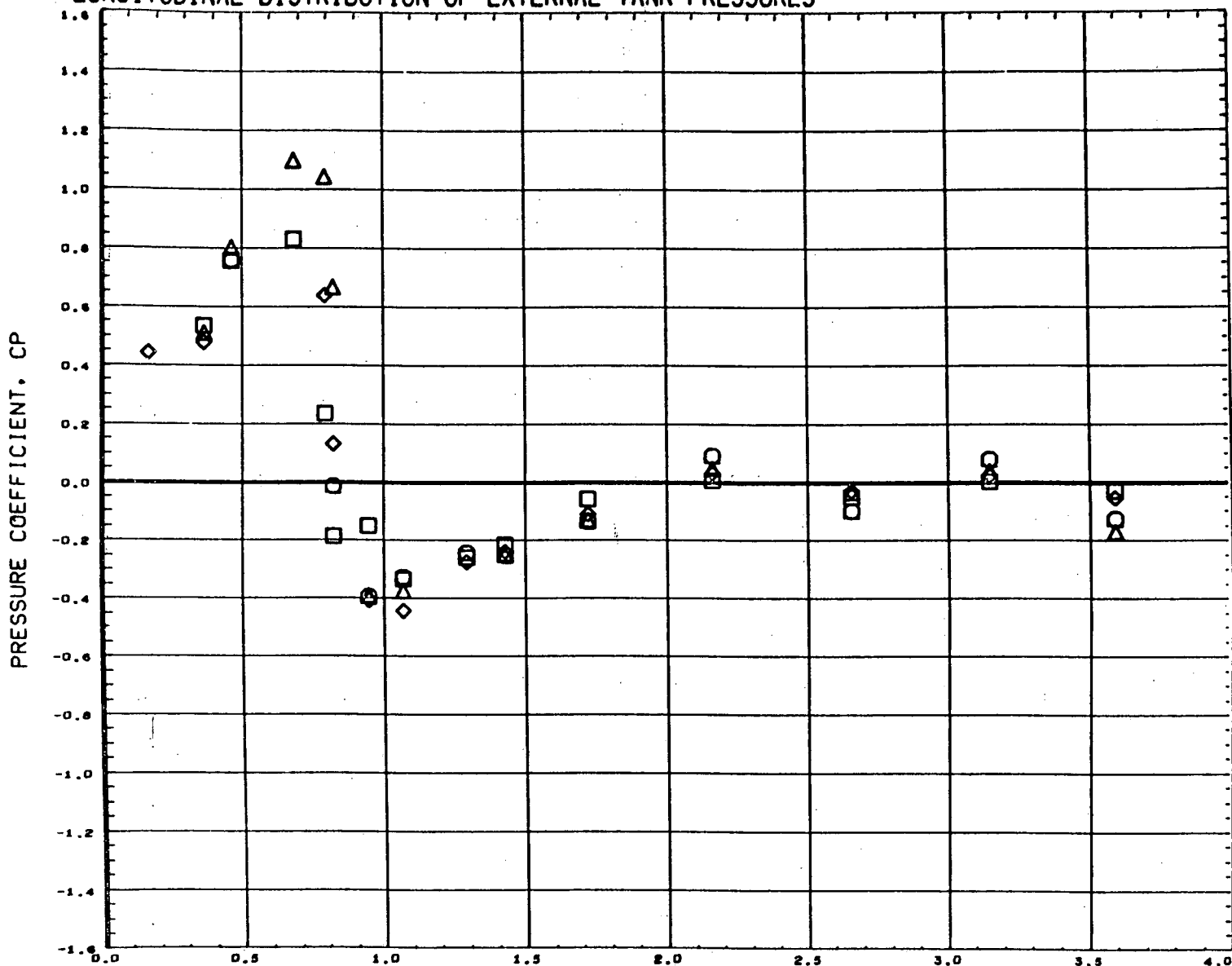
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 190

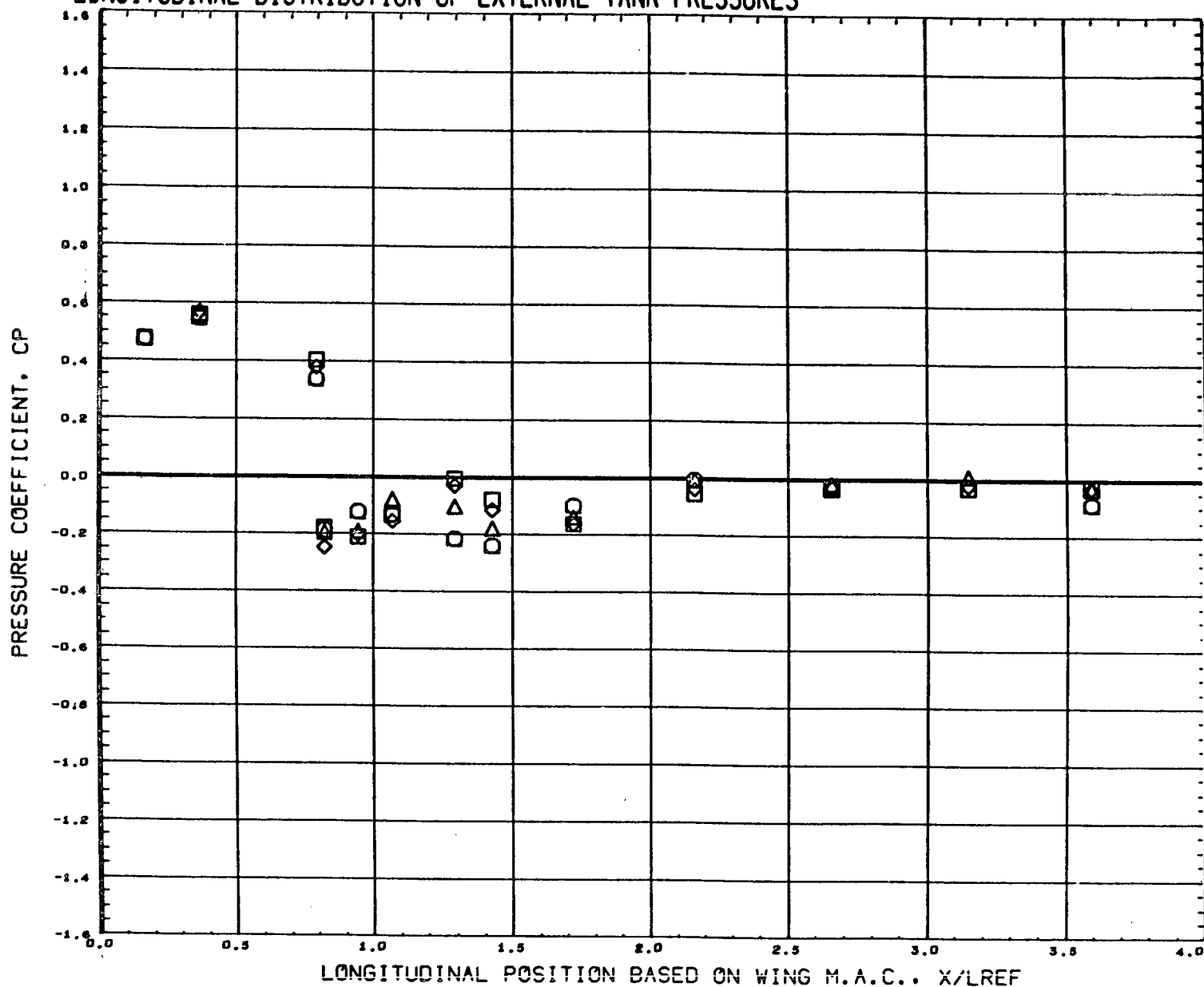
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	4.000	1.460	BETA	0.000 ORBINC - 1.500
△	75.000			SRBCAP	0.025
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

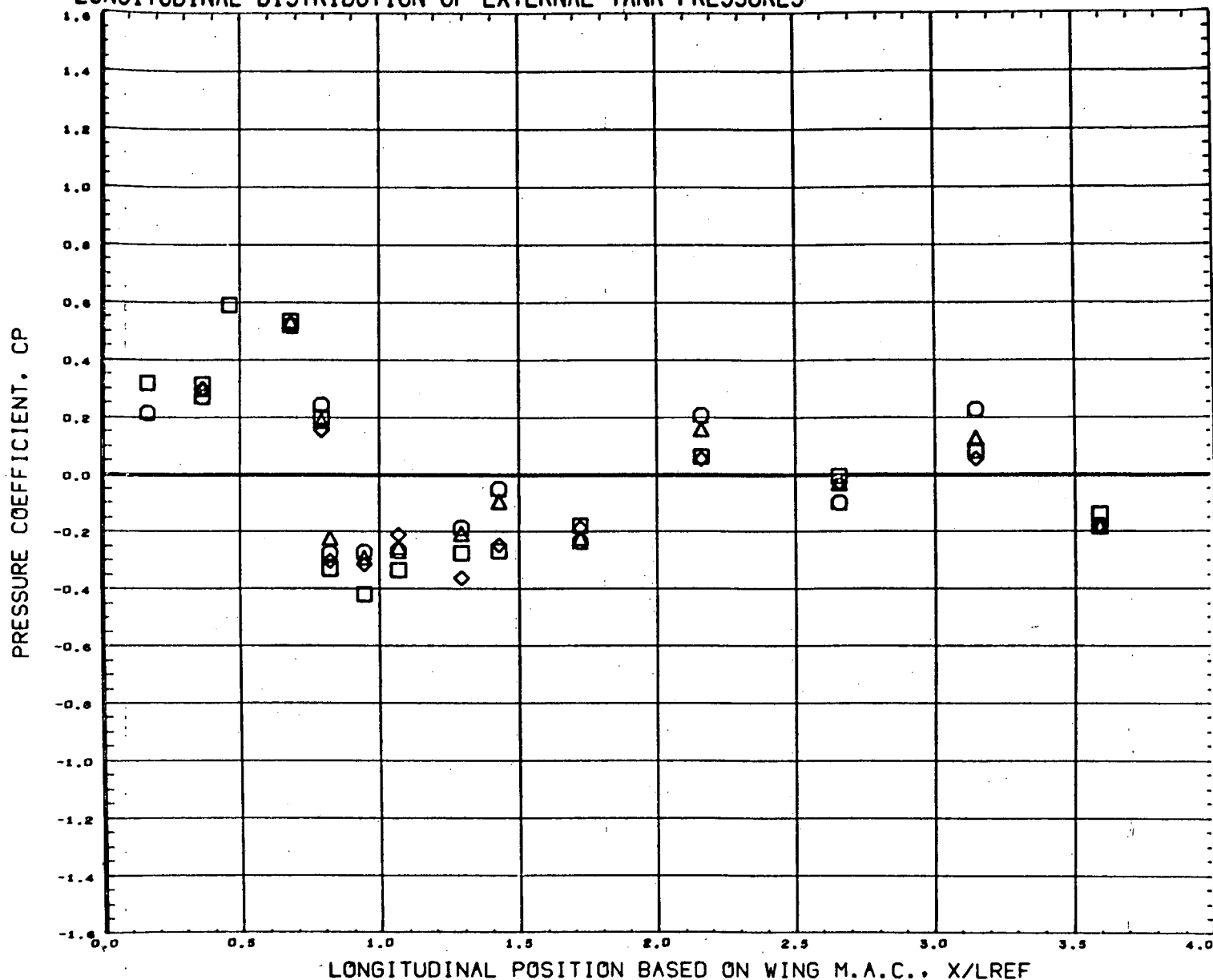


SYMBOL PHI ALPHA MACH
 ○ 126,000 4.000 1.460
 △ 144,000
 ◇ 162,000
 □ 180,000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



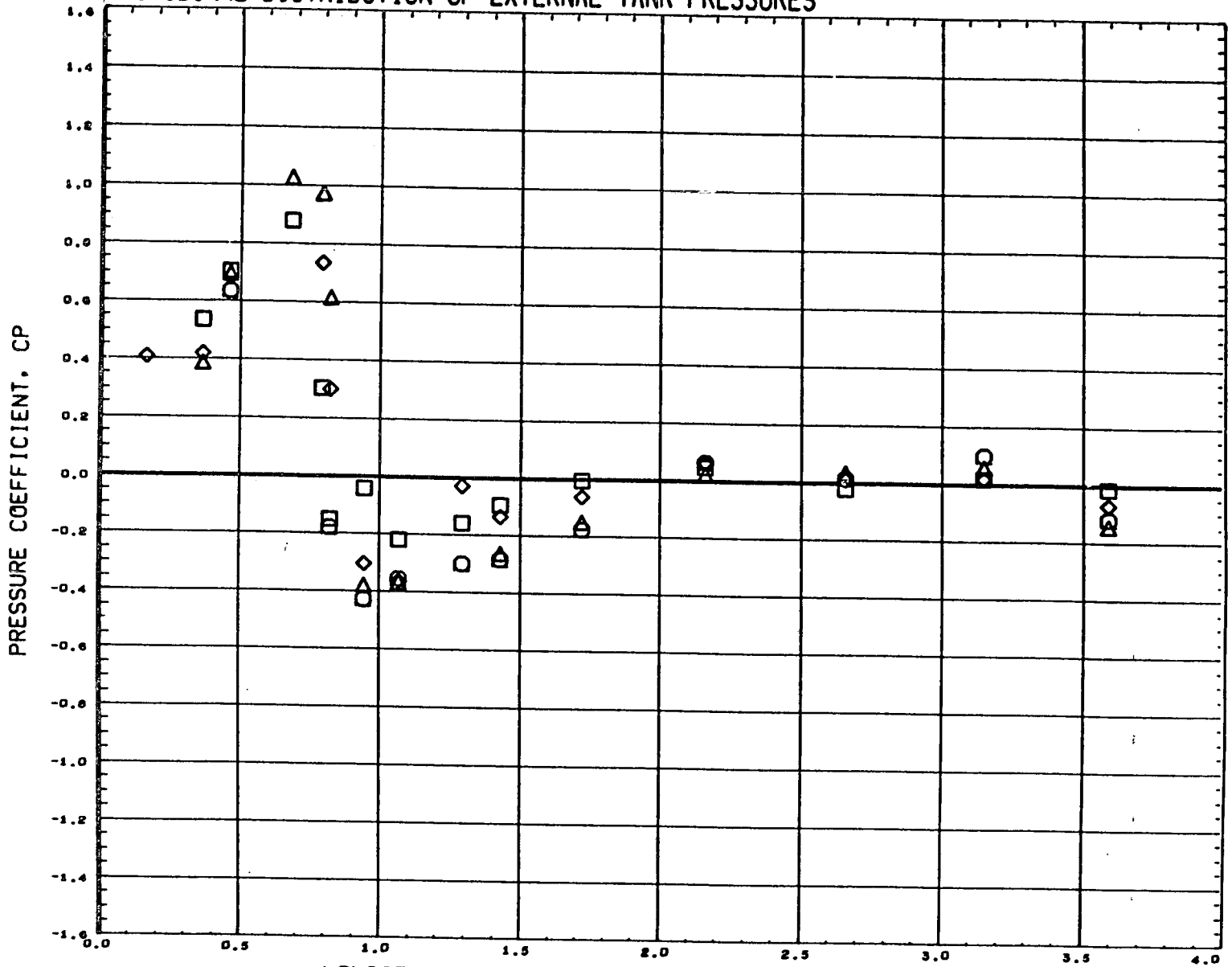
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	1.460	BETA	0.000	ORBINC - 1.500
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 193

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.460
△	75.000		
◇	90.000		
□	106.000		

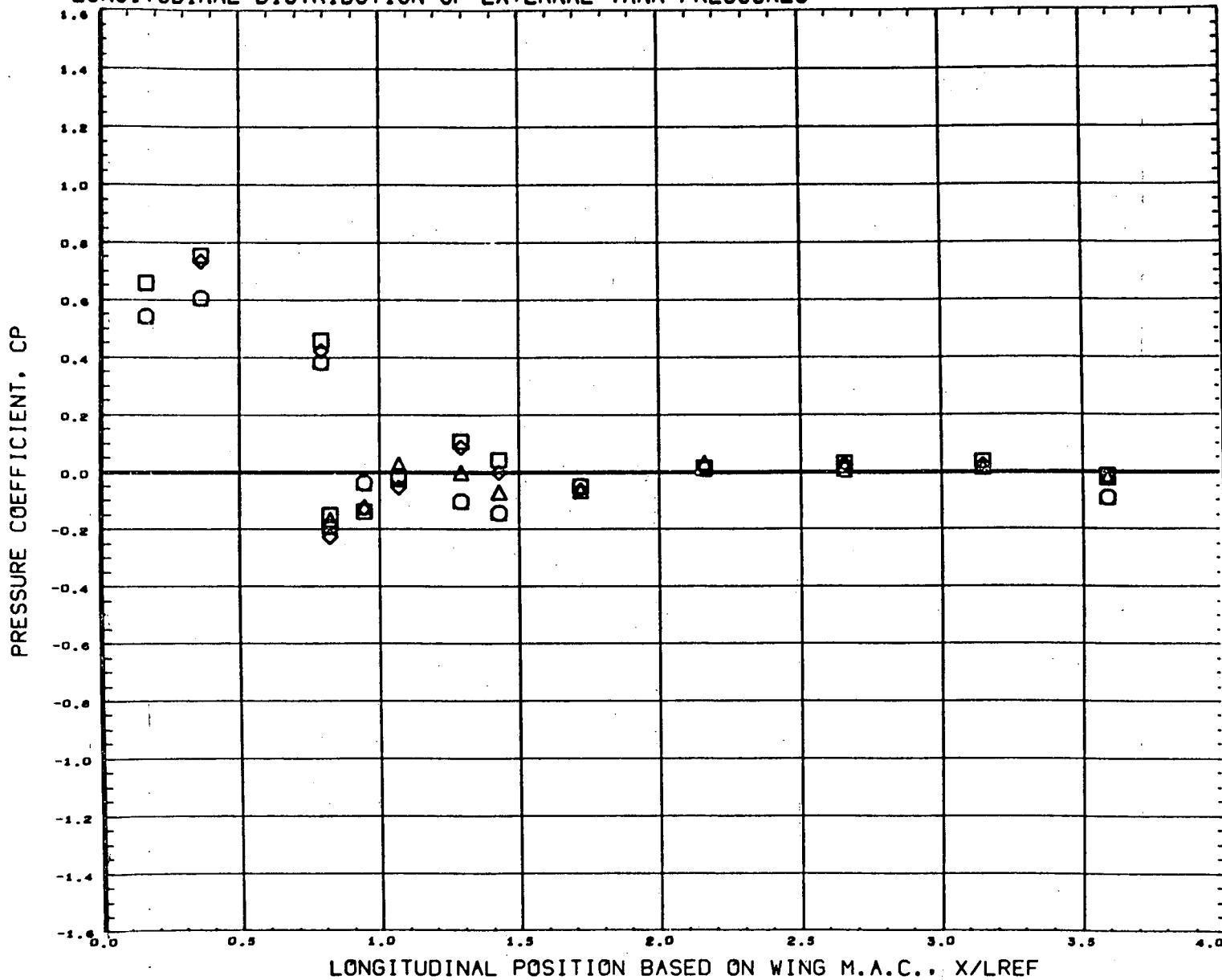
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 194

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	126,000	10,000	1.460
△	144,000		
◇	162,000		
□	160,000		

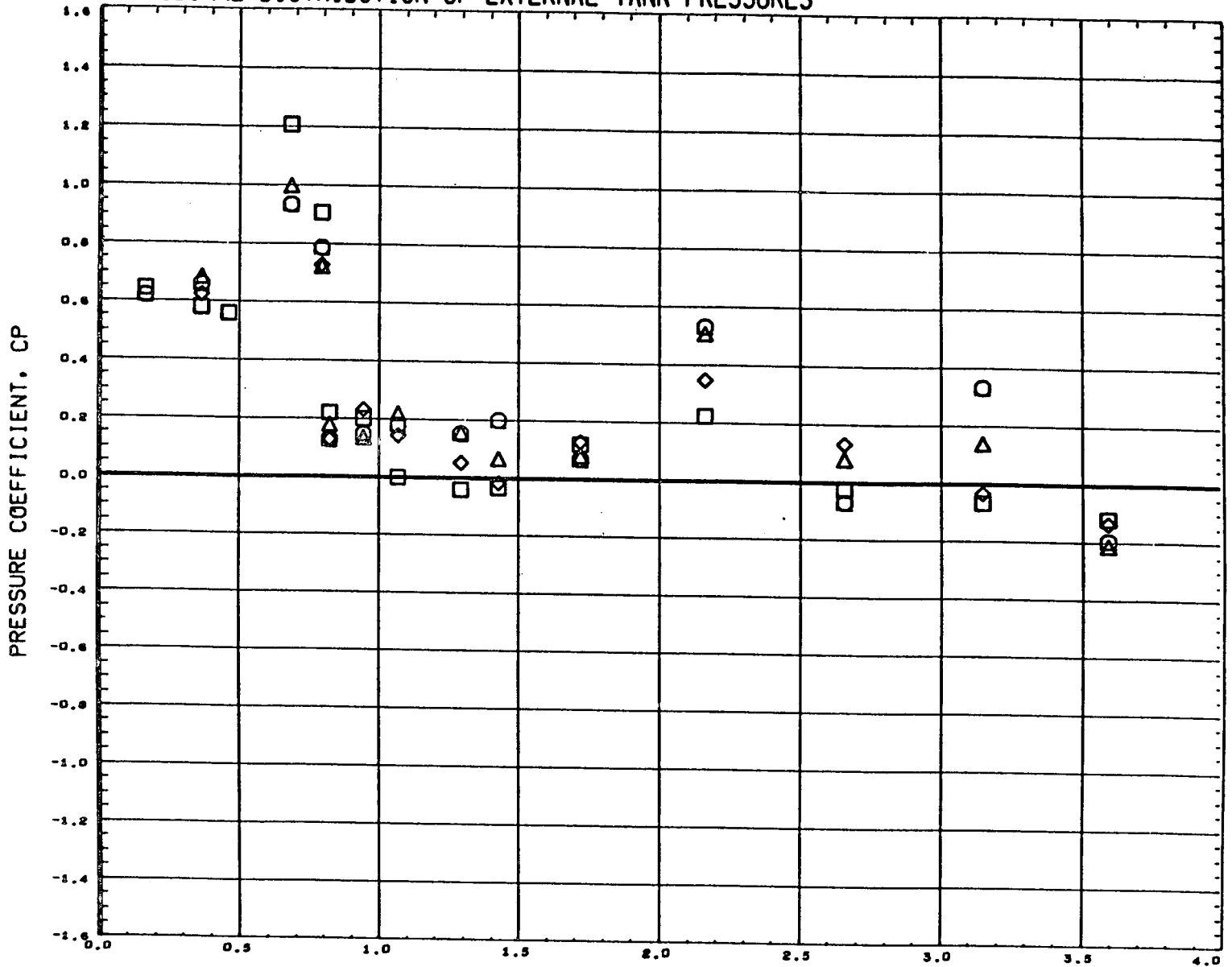
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 195

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



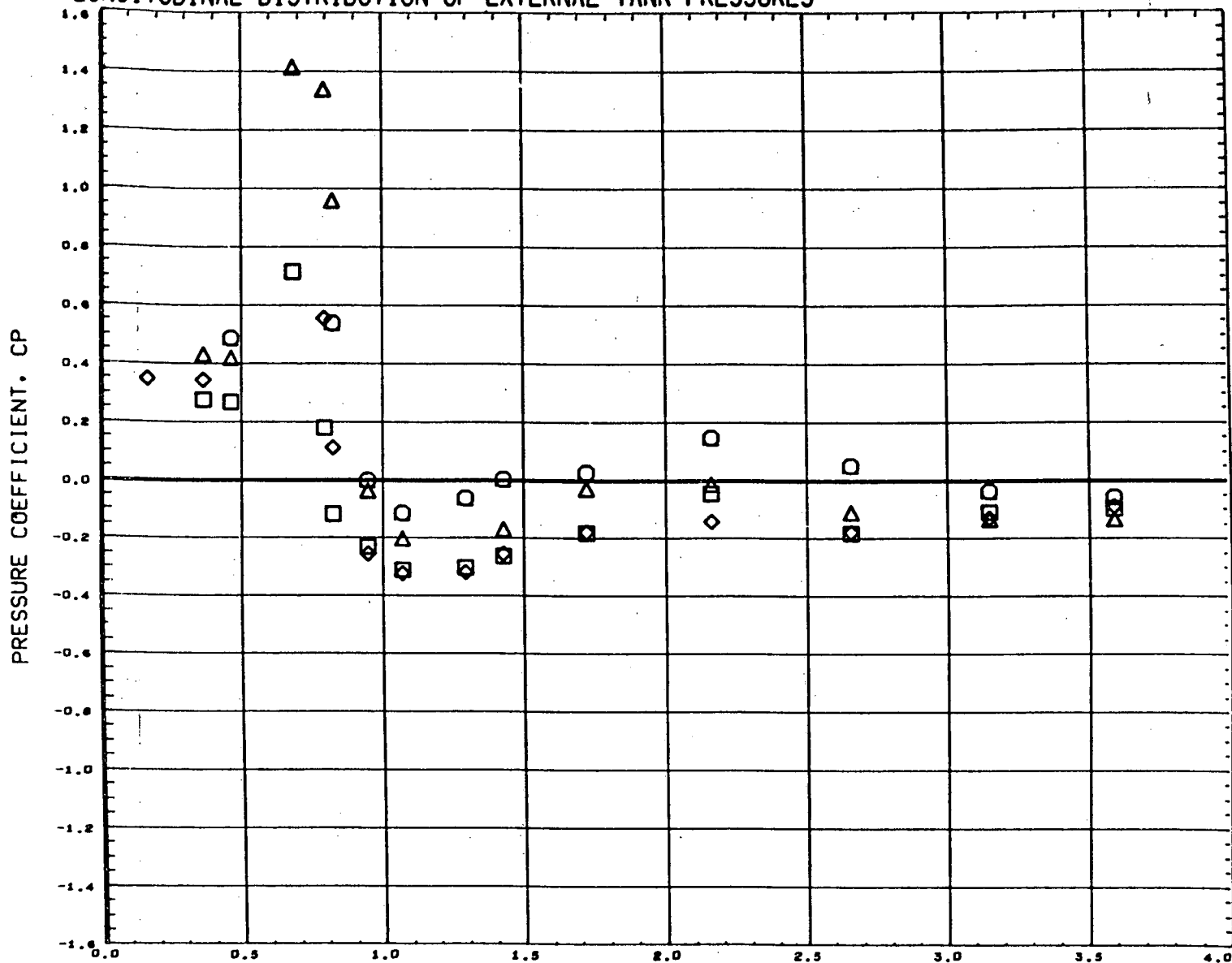
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	- 10.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 196

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



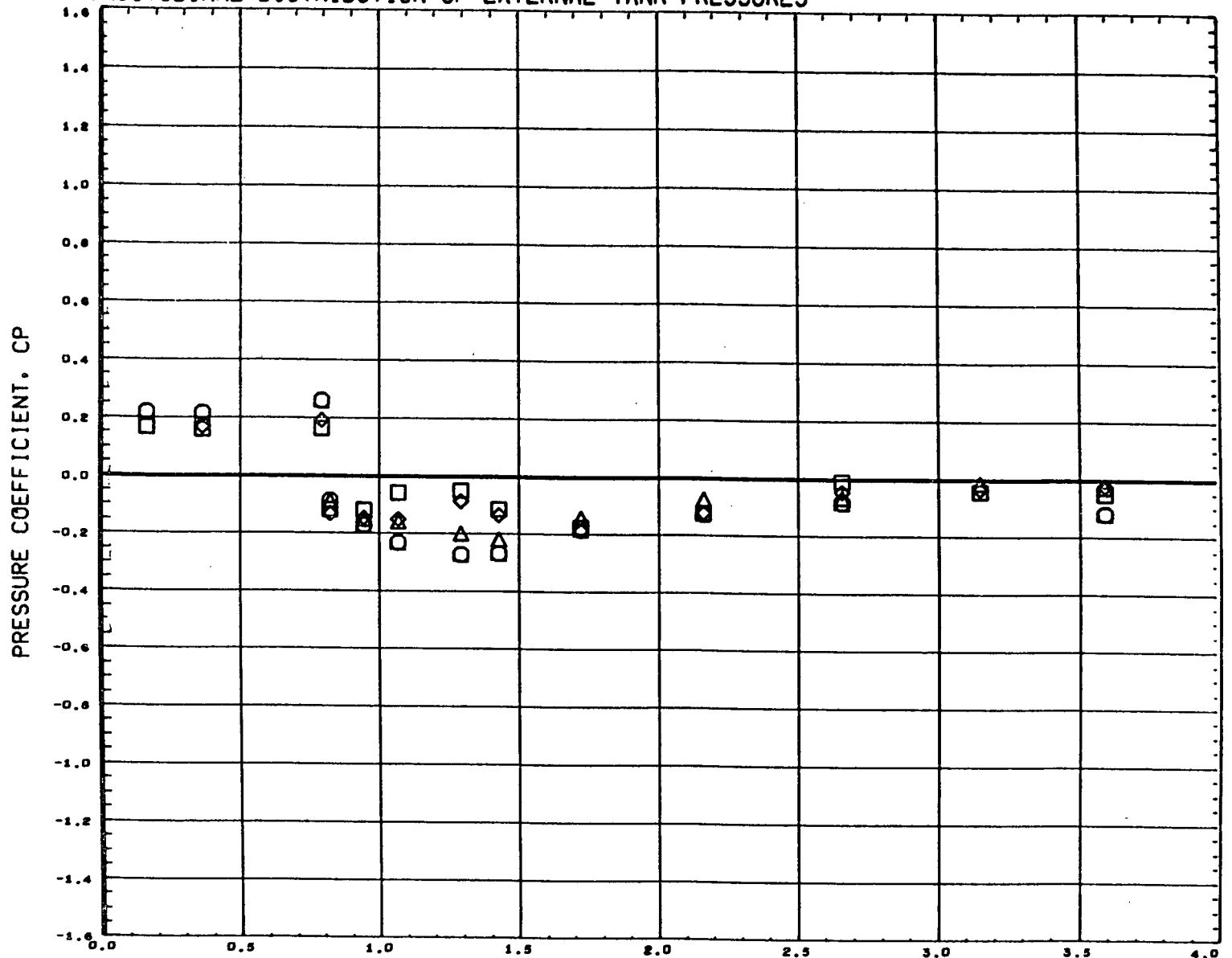
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	- 10.000	1.960
△	75.000		
◇	90.000		
□	100.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	- 10.000	1.960
△	144.000		
◇	162.000		
□	180.000		

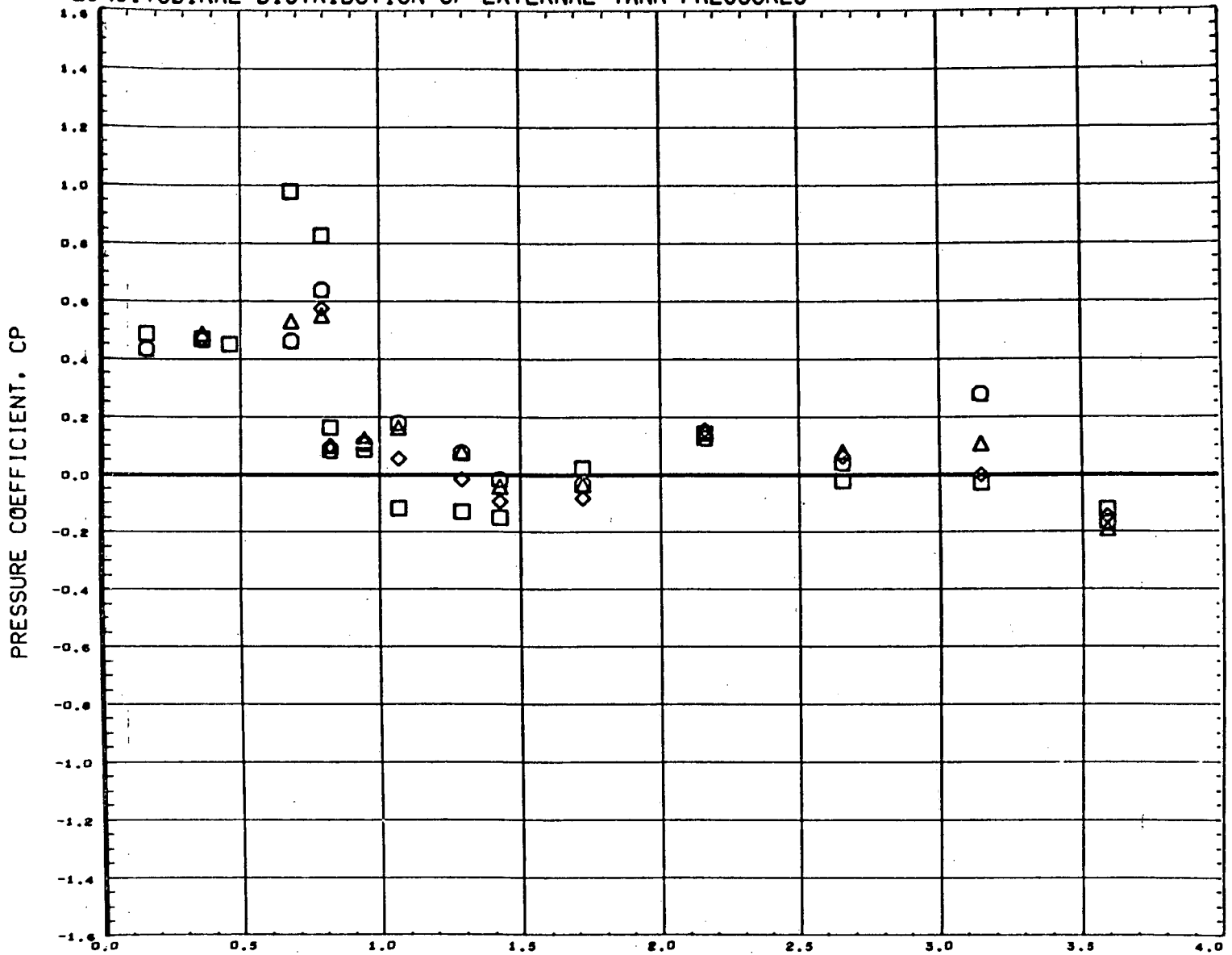
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 198

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	- 4.000	1.960	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

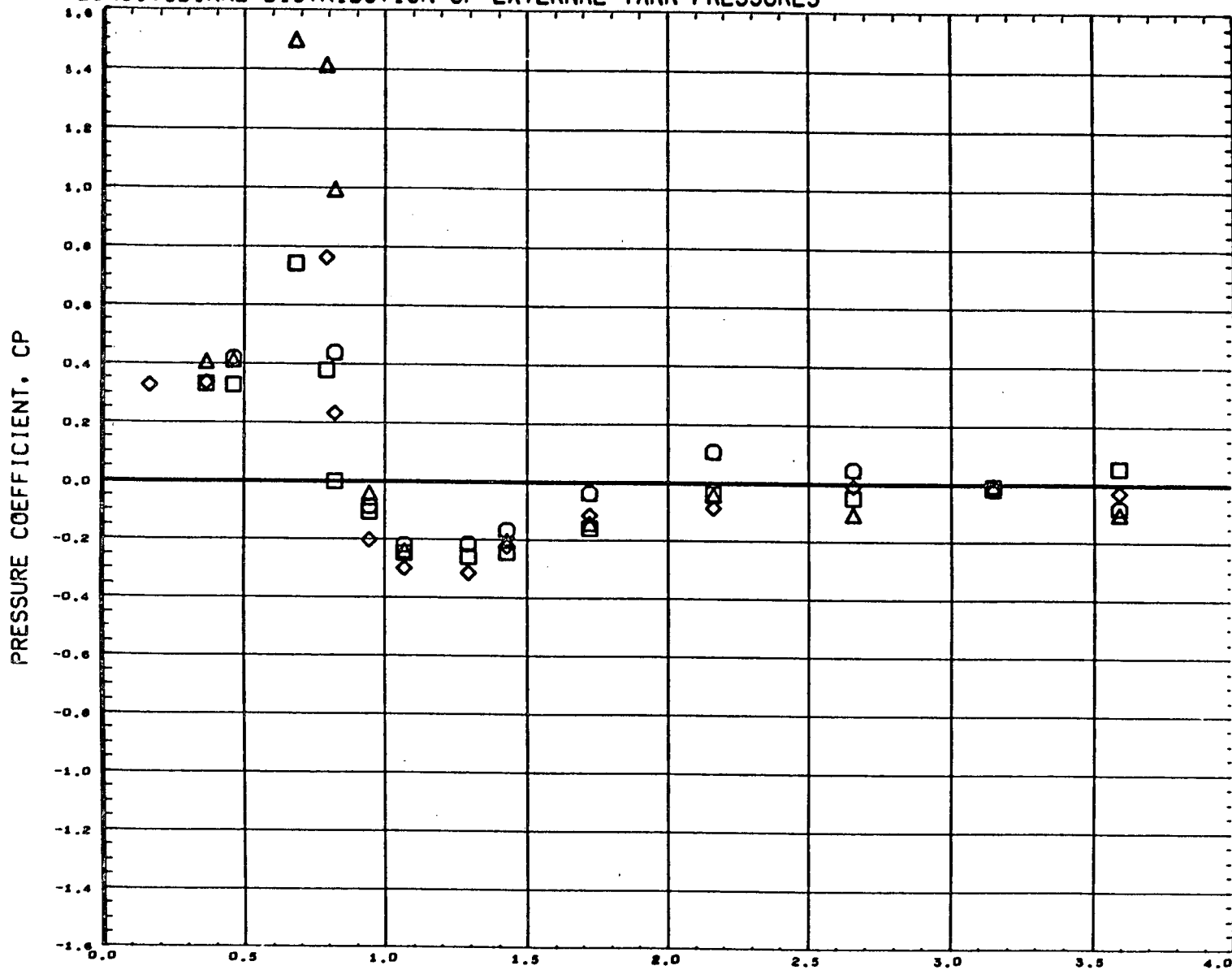
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 199

7

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
◇	60.000	- 4.000	1.960
△	75.000		
□	90.000		
○	100.000		

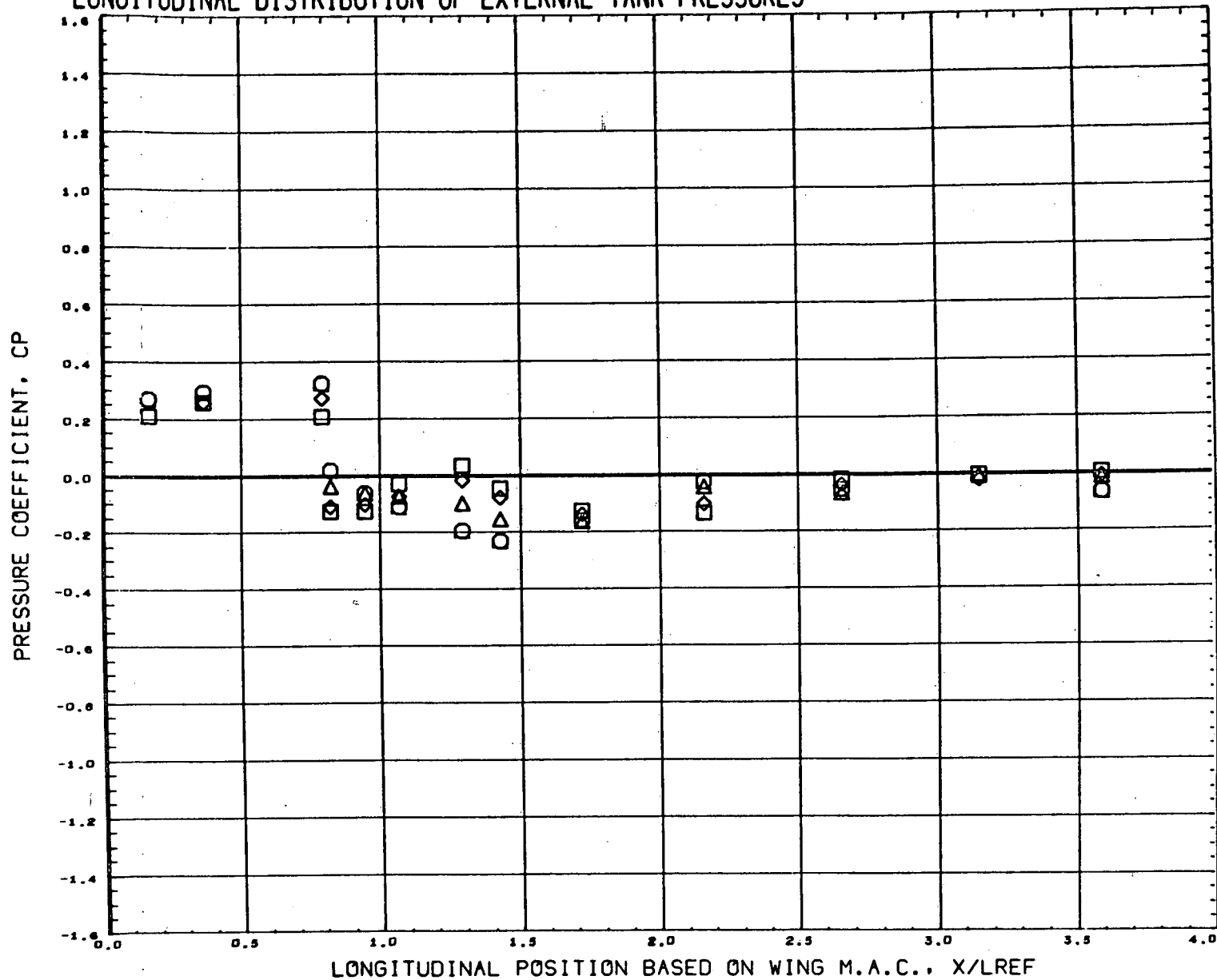
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 200

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

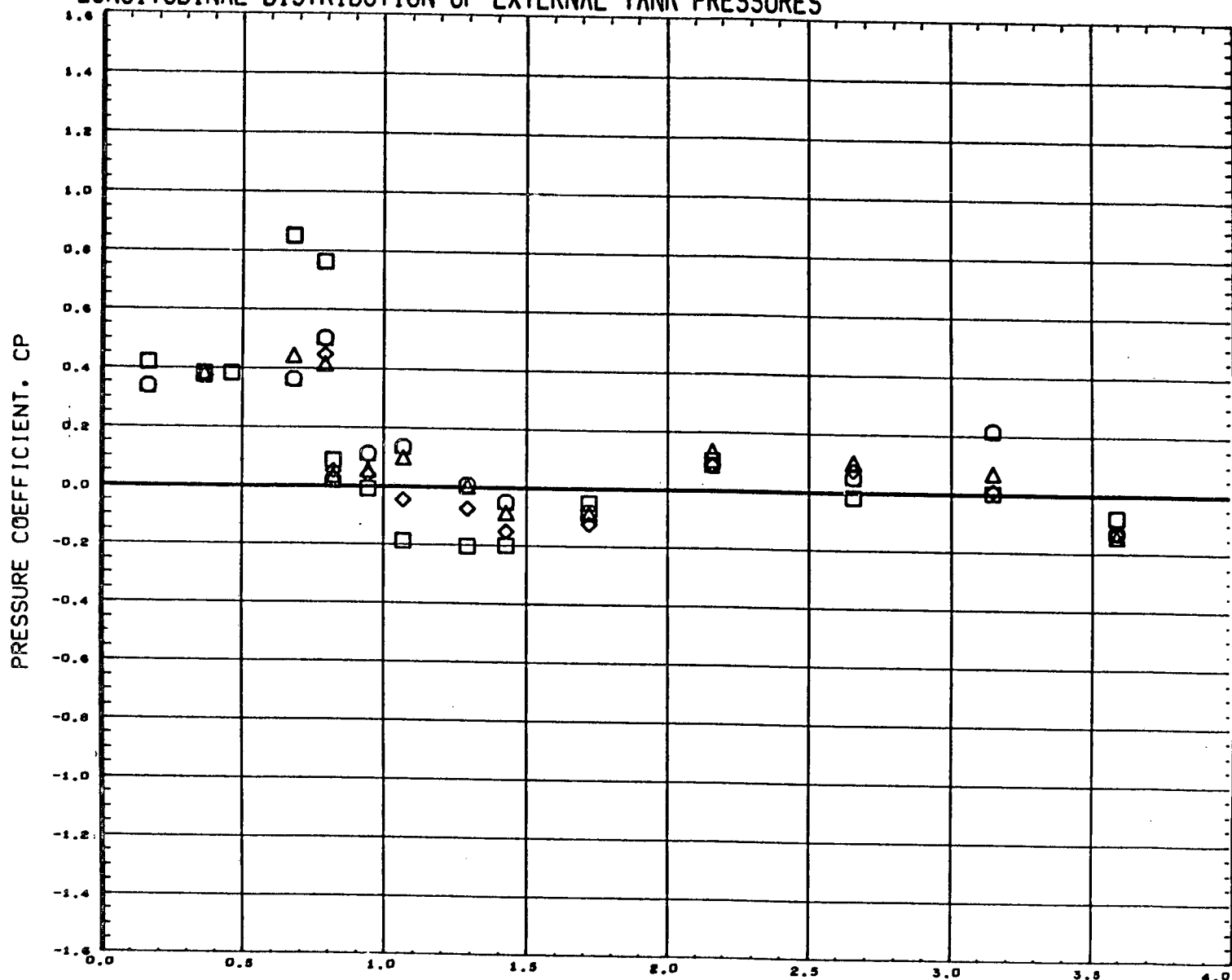


SYMBOL	PHI	ALPHA	MACH
○	126,000	4.000	1.960
△	144,000		
◇	162,000		
□	180,000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	0.000	1.960
△	15.000		
◇	30.000		
□	45.000		

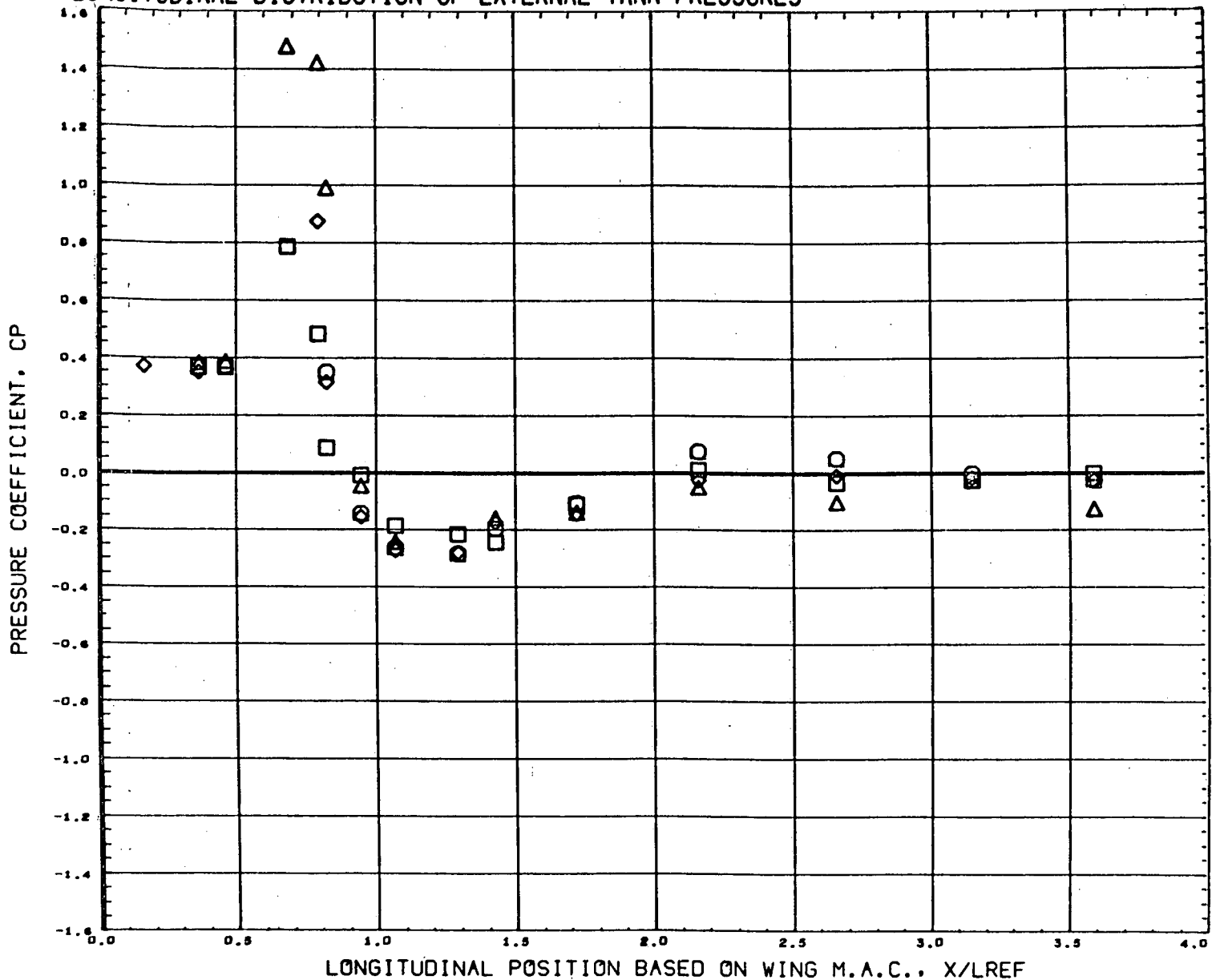
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 202

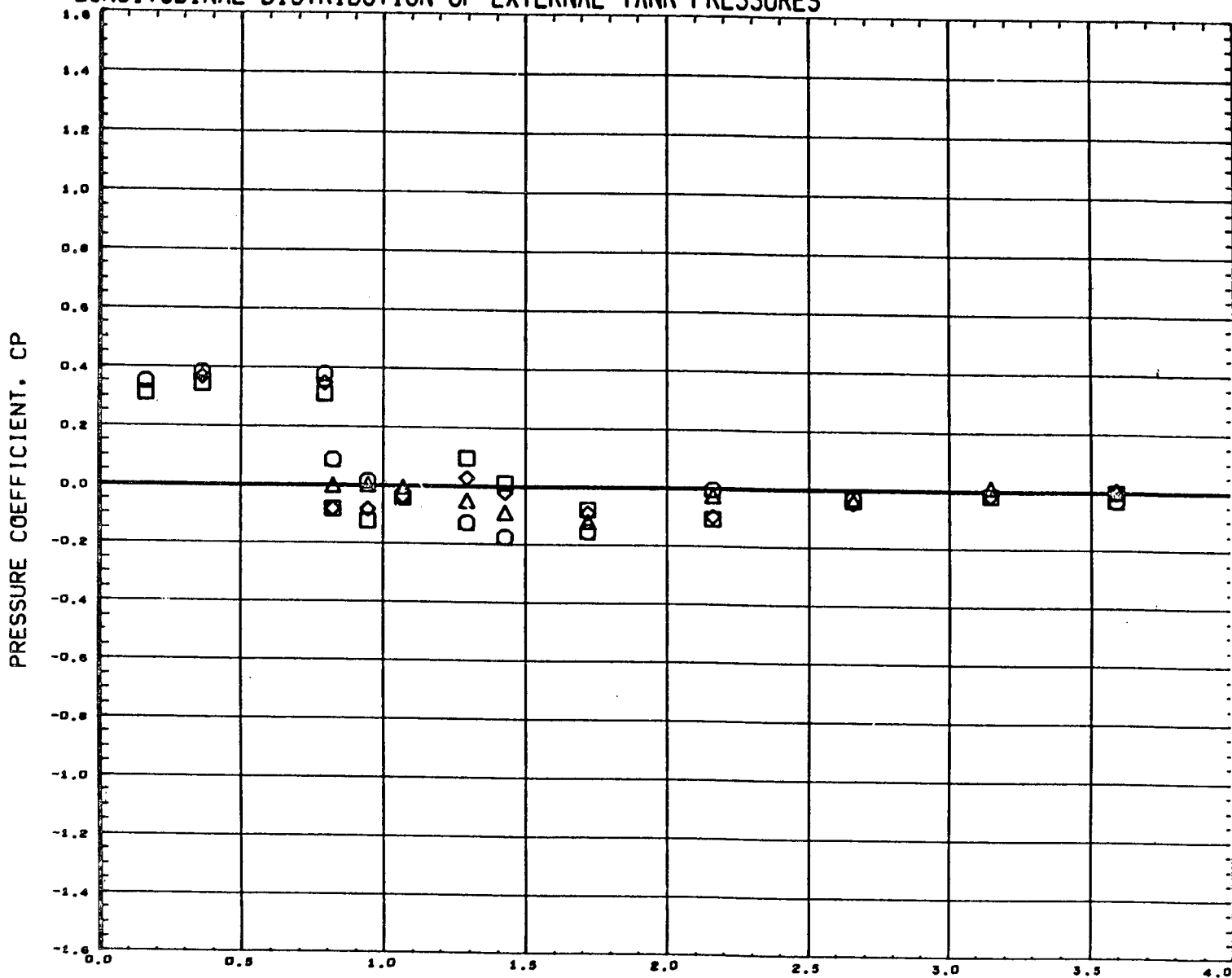
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	0.000	1.960	BETA	0.000	ORBINC - 1.500
△	75.000			SRBCAP	0.025	
◇	90.000					
□	106.000					

REFERENCE FILE

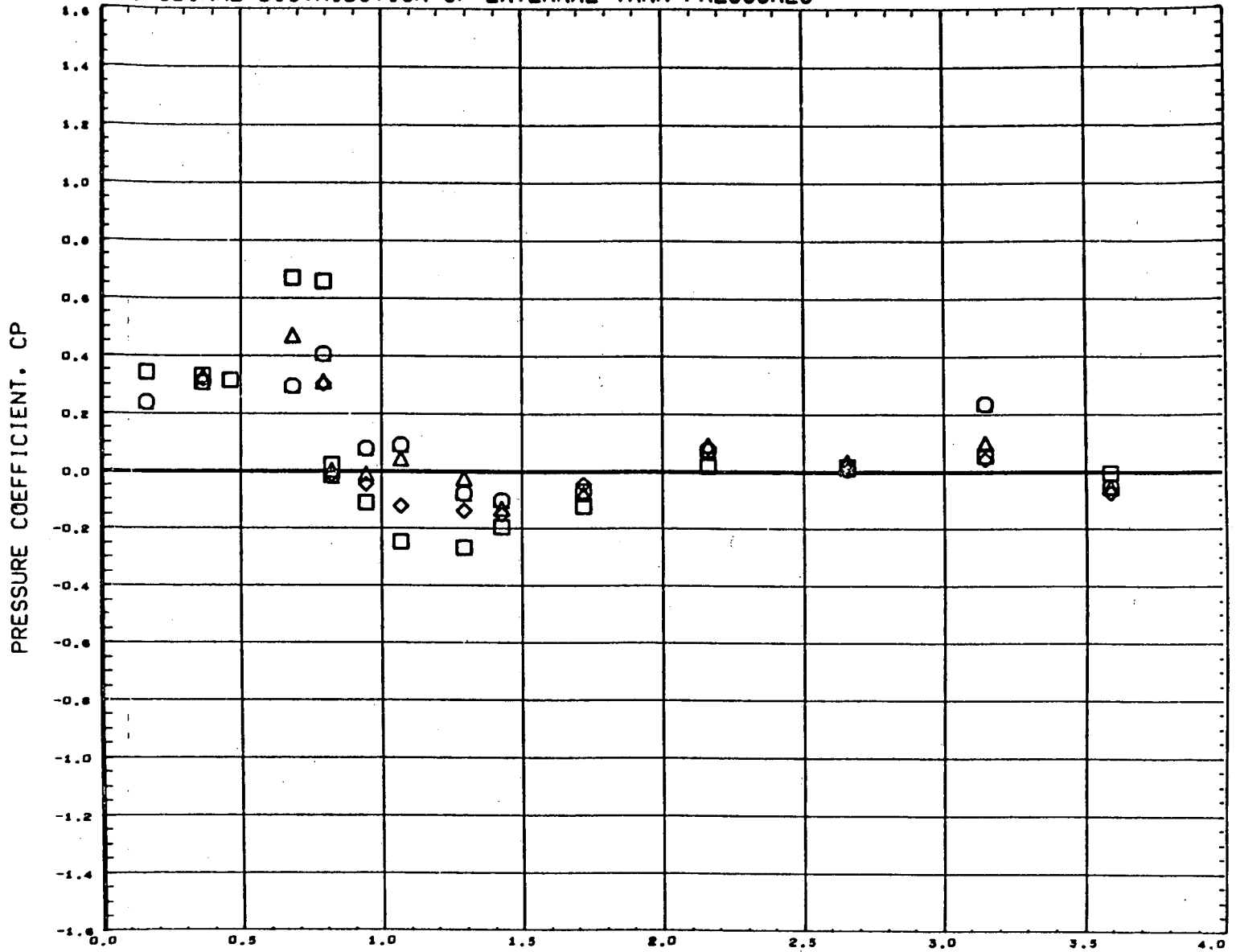
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	126.000	0.000	1.960	BETA	0.000 ORBINC + 1.500
△	144.000			SRBCAP	0.025
◇	162.000				
□	180.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



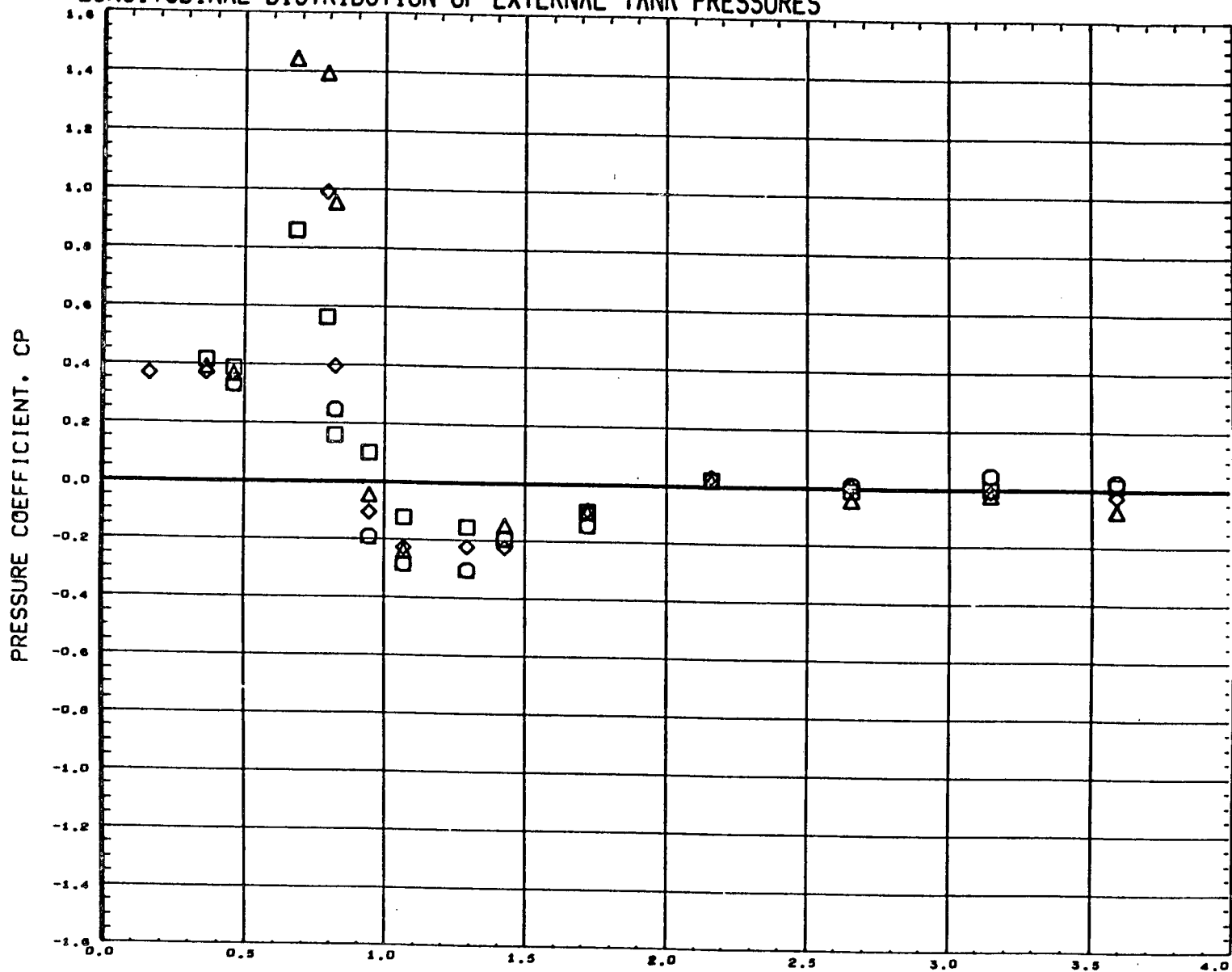
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 205

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60,000	4.000	1.960
△	75,000		
◇	90,000		
□	106,000		

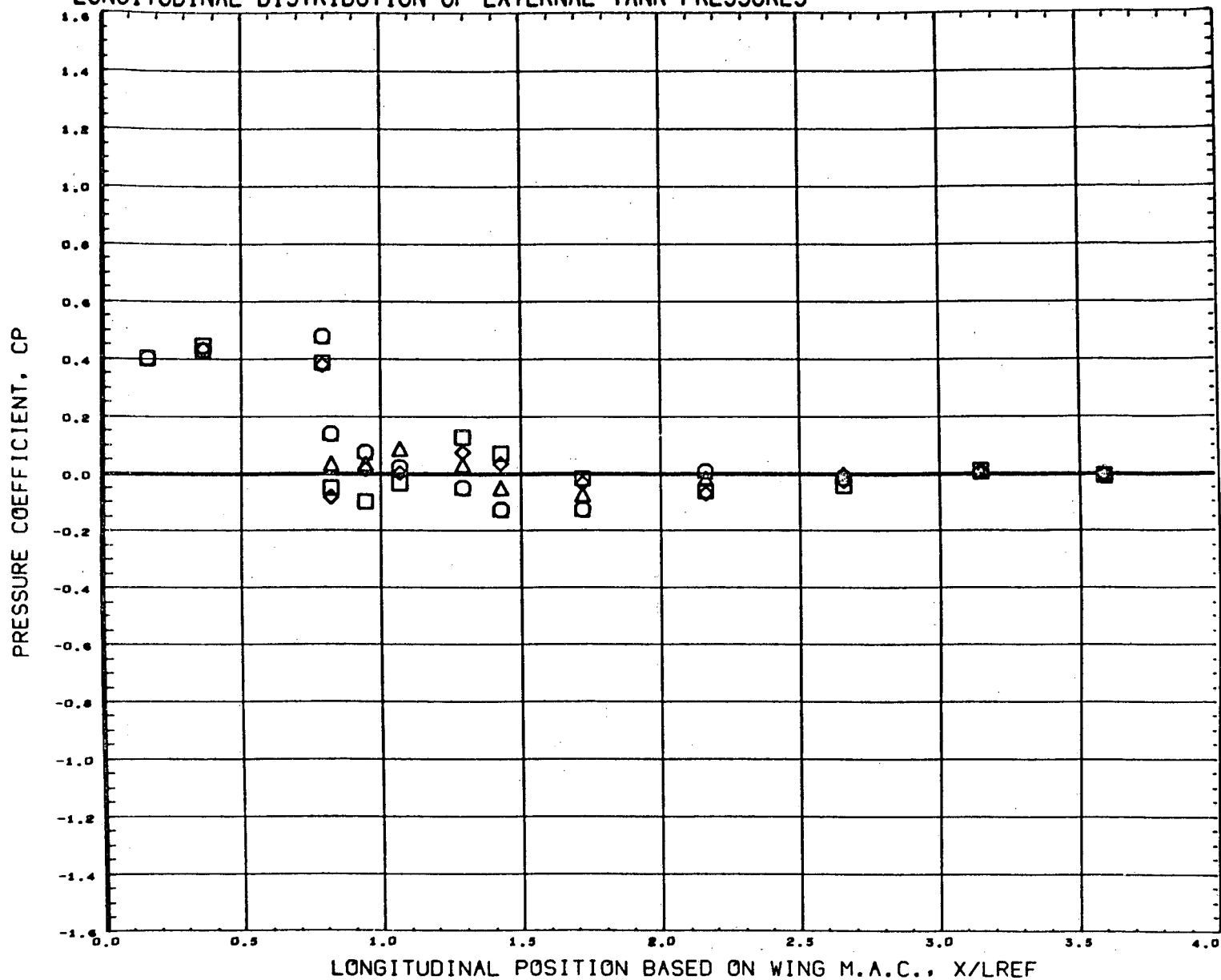
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701TK)

PAGE 206

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



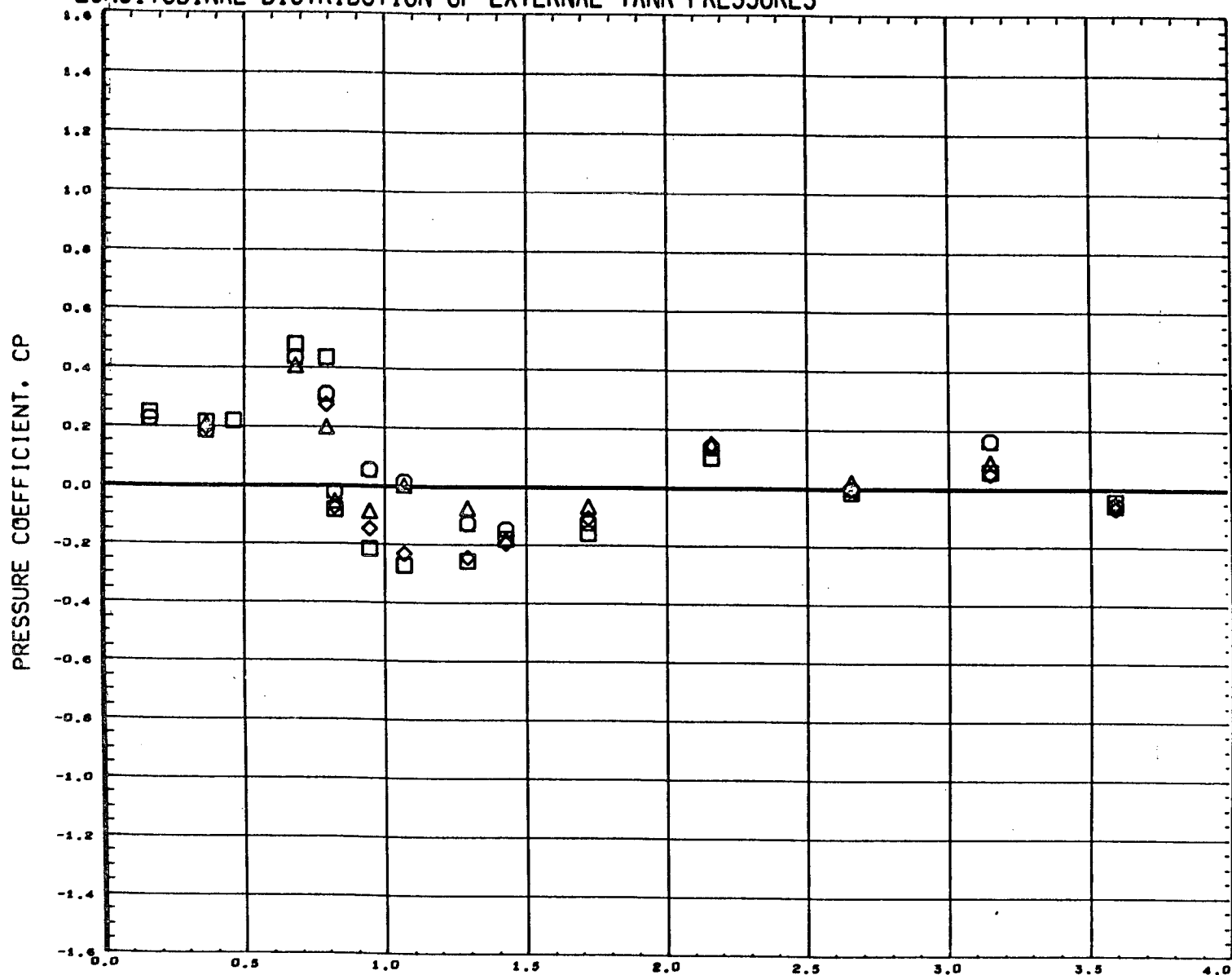
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126,000	4.000	1.960	BETA	0.000	ORBINC - 1.500
△	144,000			SRBCAP	0.025	
◇	142,000					
□	140,000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 207

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

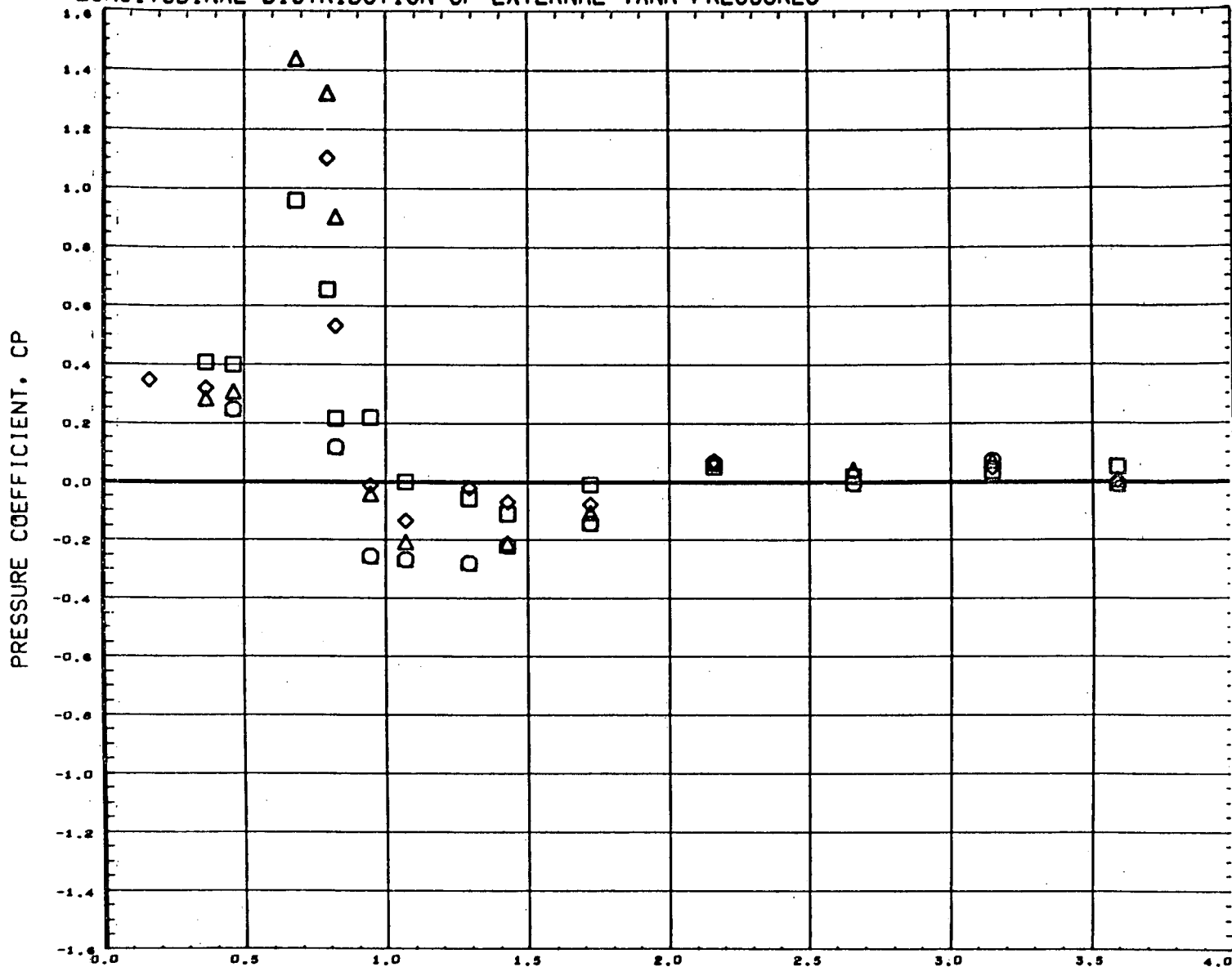


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



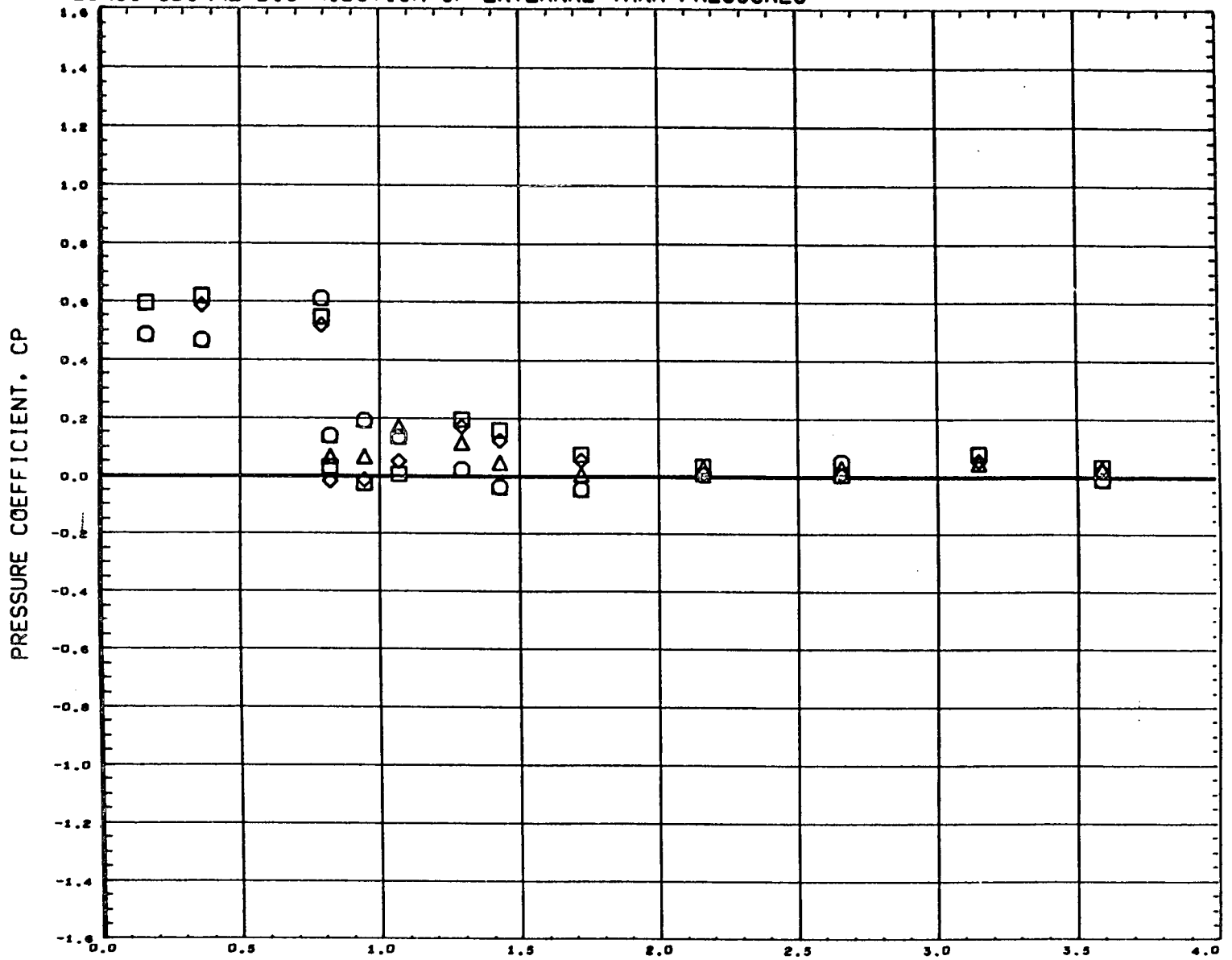
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	10.000	1.960	BETA	0.000 ORBINC - 1.500
△	75.000			SRBGAP	0.025
◇	90.000				
□	100.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 209

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	10.000	1.960
△	144.000		
◇	162.000		
□	180.000		

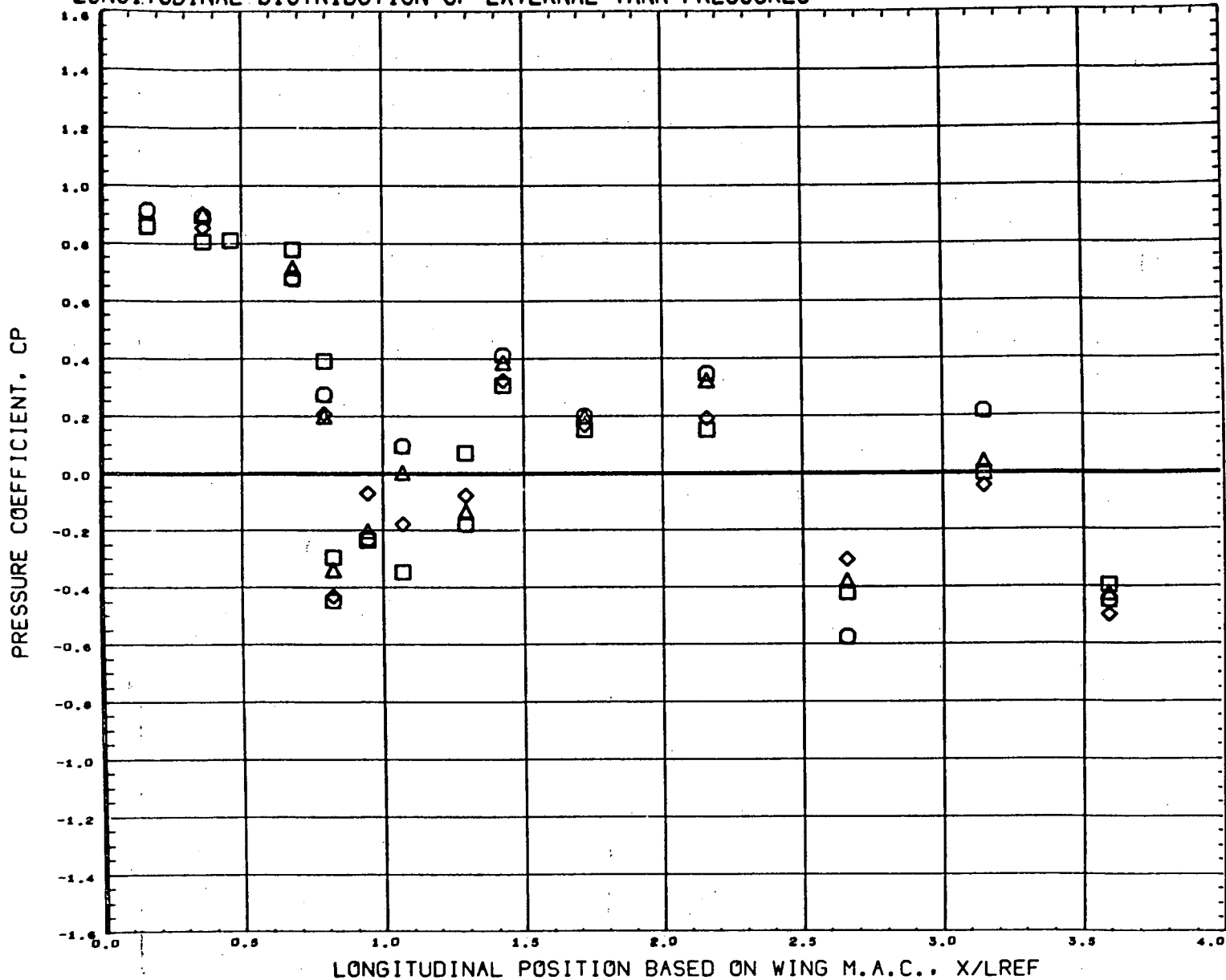
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701TK)

PAGE 210

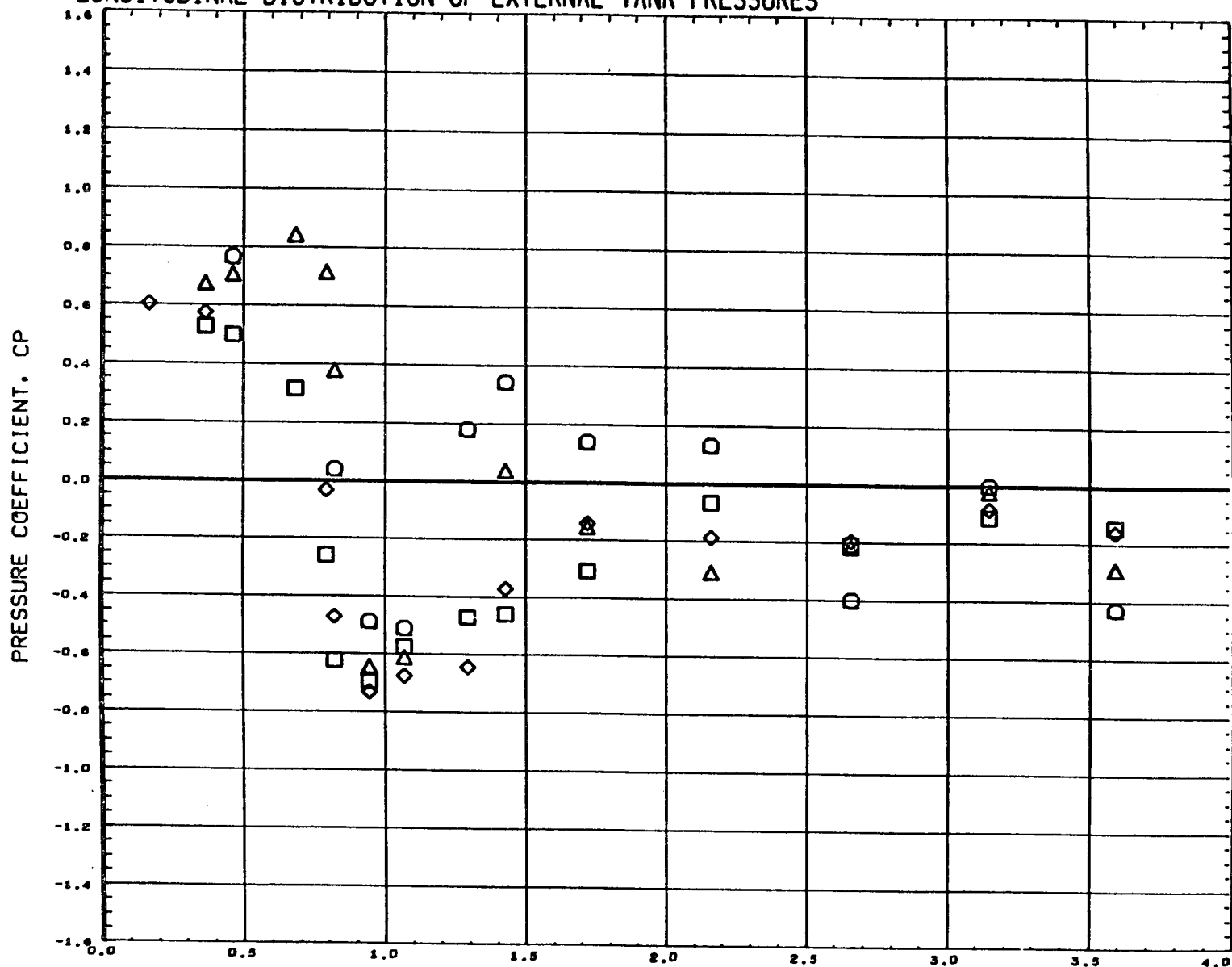
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



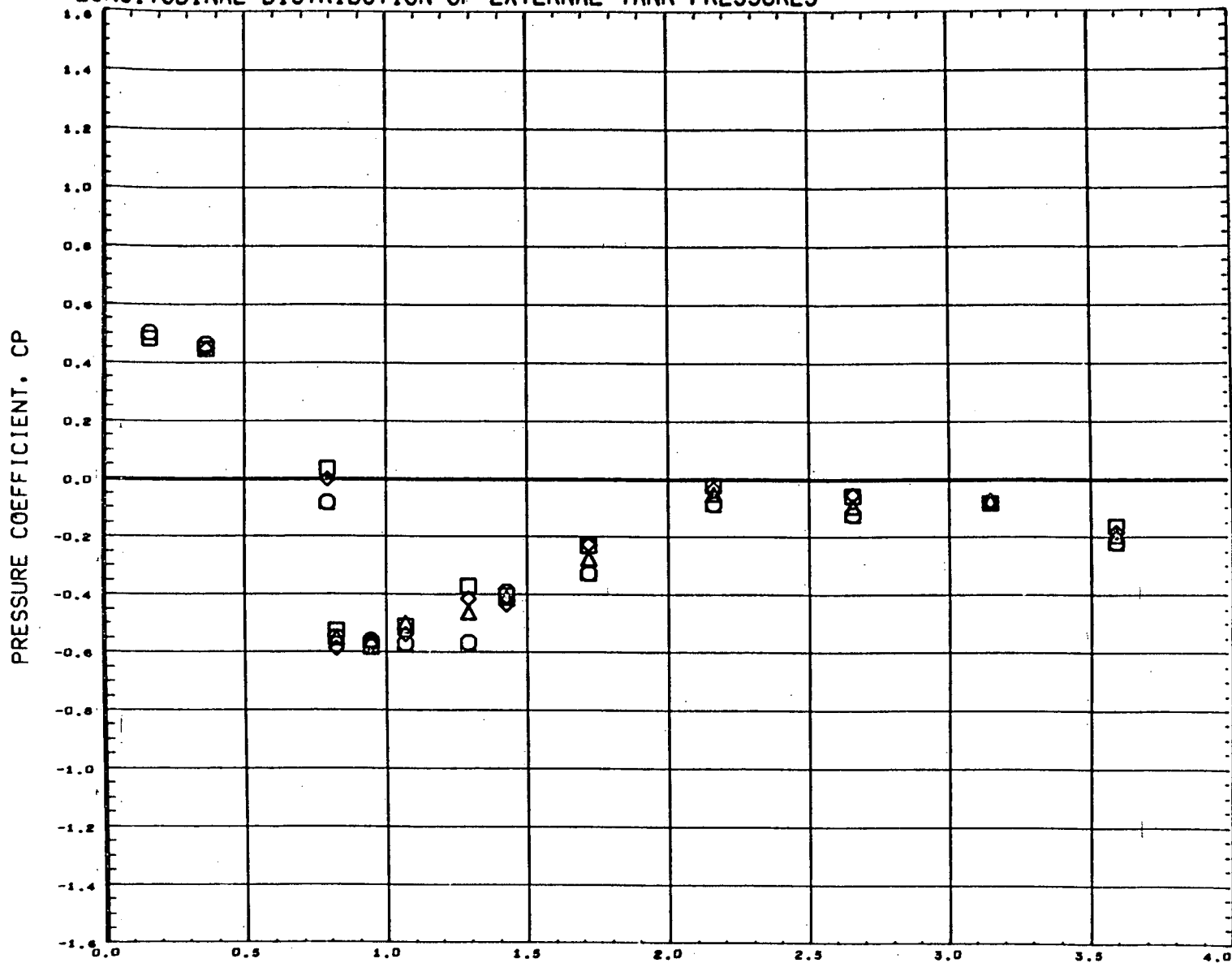
SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	
○	0.000	- 10.000	1.200	0.000	0.025		0.000	
△	15.000							
◇	30.000							
□	45.000							

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	- 10,000	1,200
△	144,000		
◇	162,000		
□	180,000		

PARAMETRIC VALUES	
BETA	0,000
SRBGAP	0,025
ORBINC	0,000

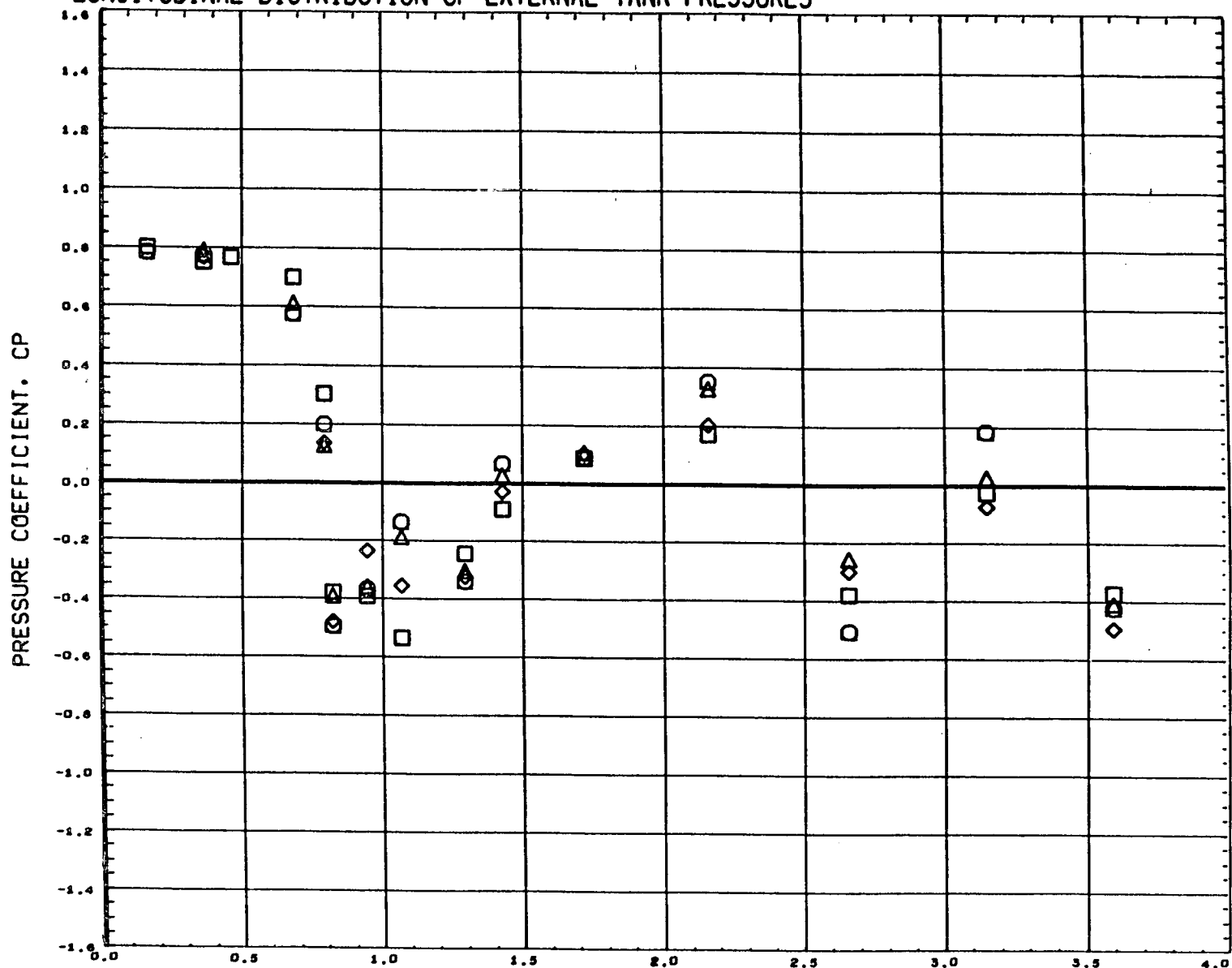
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 213

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LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



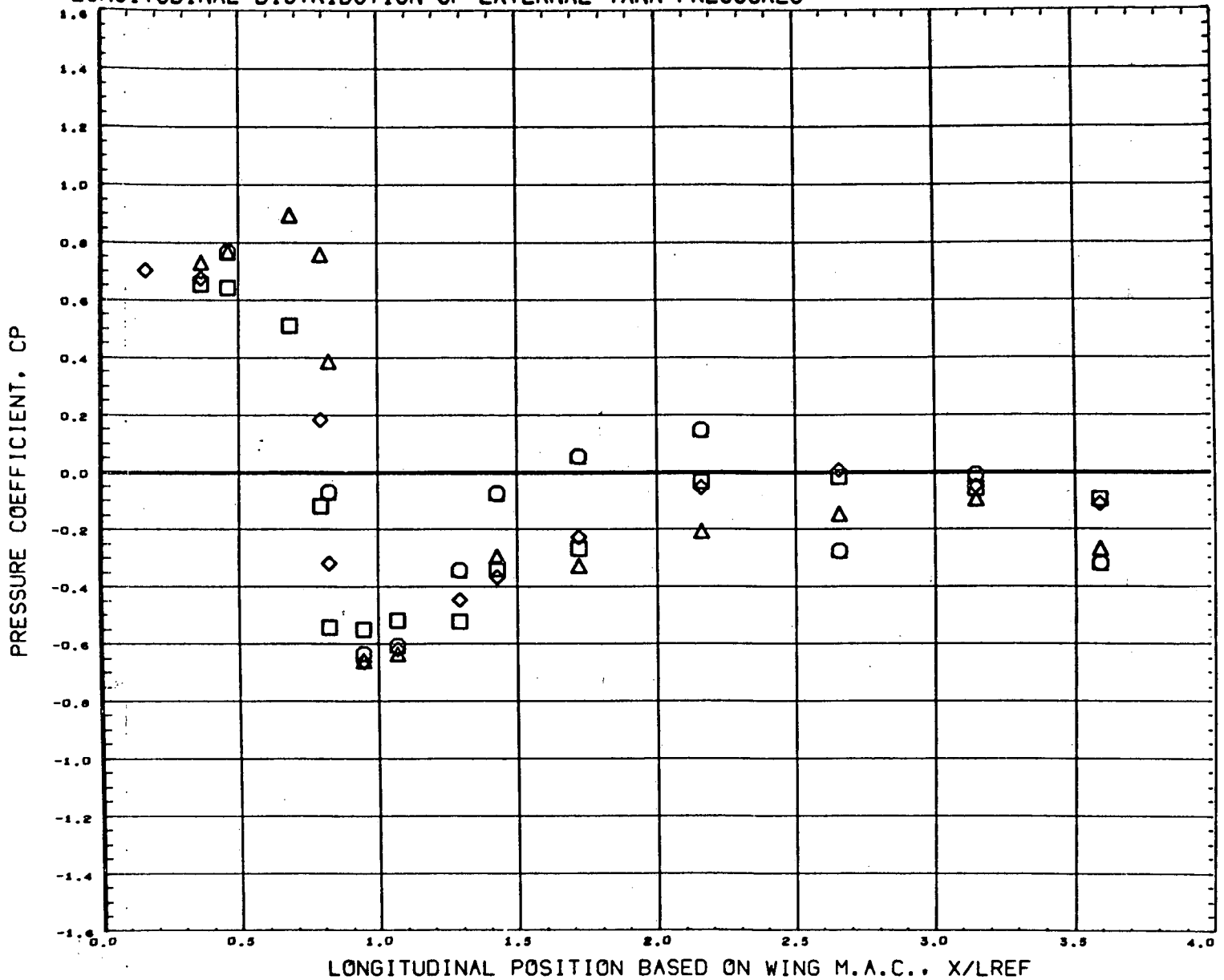
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	- 4.000	1.200
△	15.000		
◇	30.000		
□	45.000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBCAP	0.025	

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60.000	4.000	1.200
△	75.000		
◇	90.000		
□	100.000		

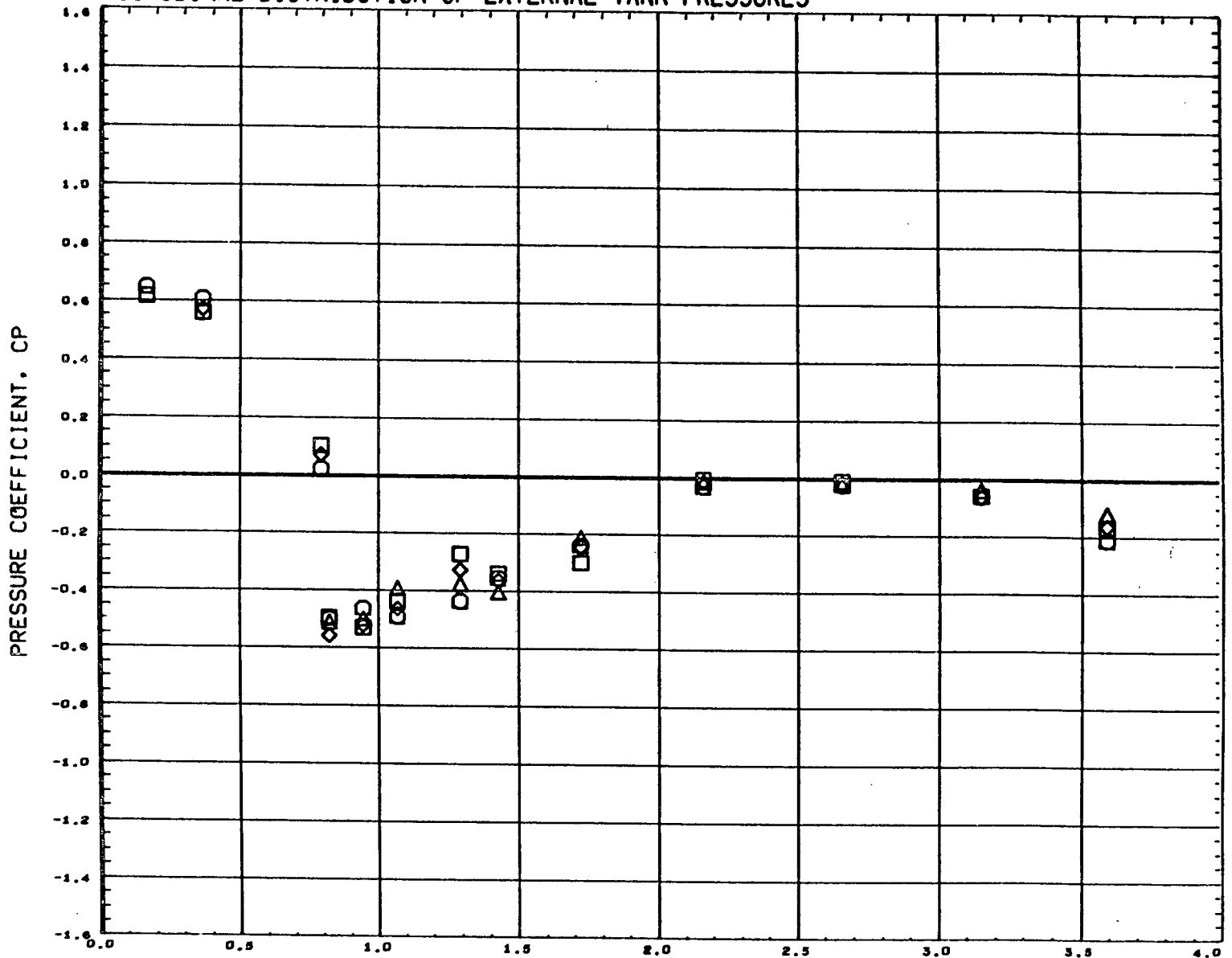
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBCAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 215

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	4.000	1.200
△	144.000		
◇	162.000		
□	180.000		

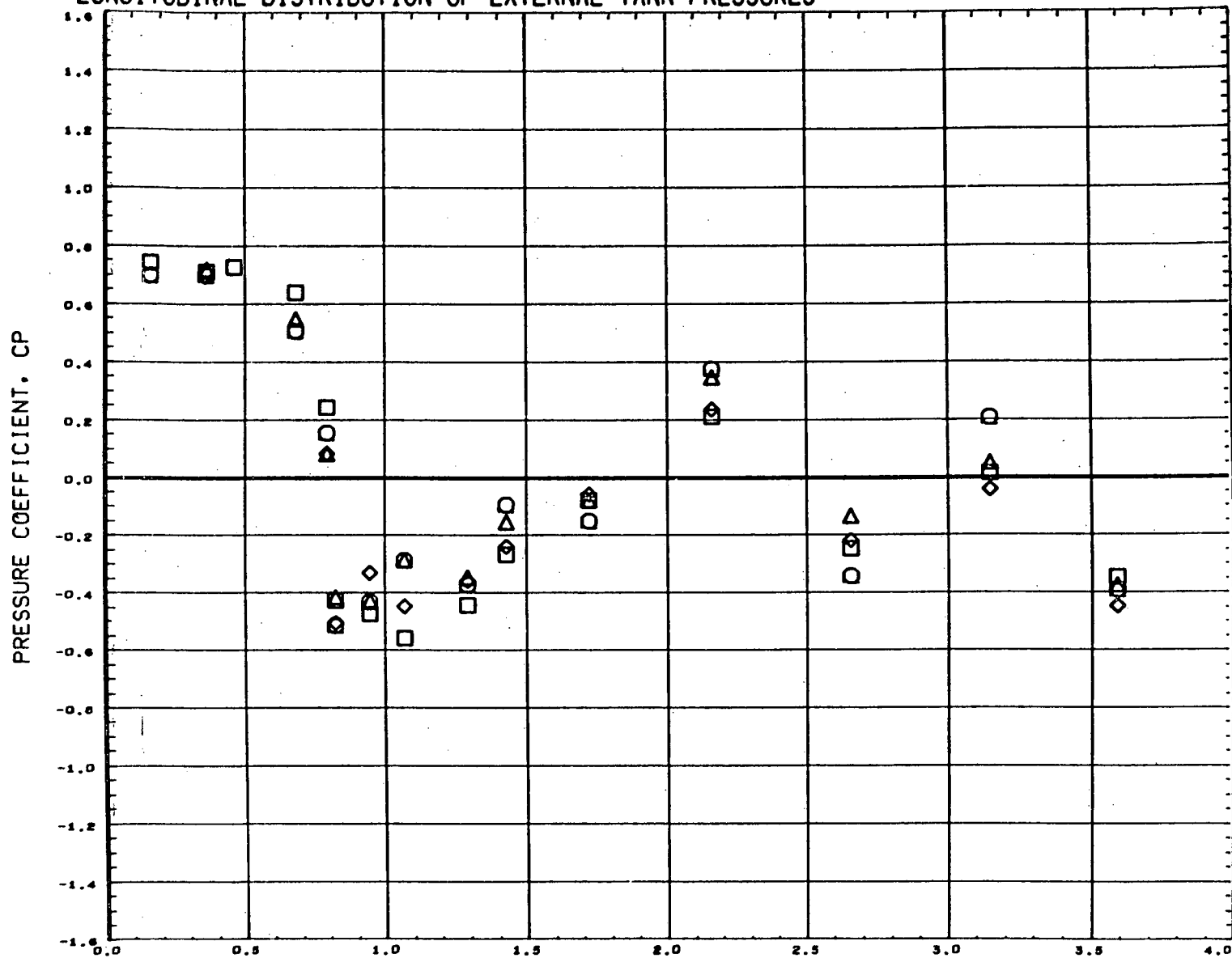
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 216

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

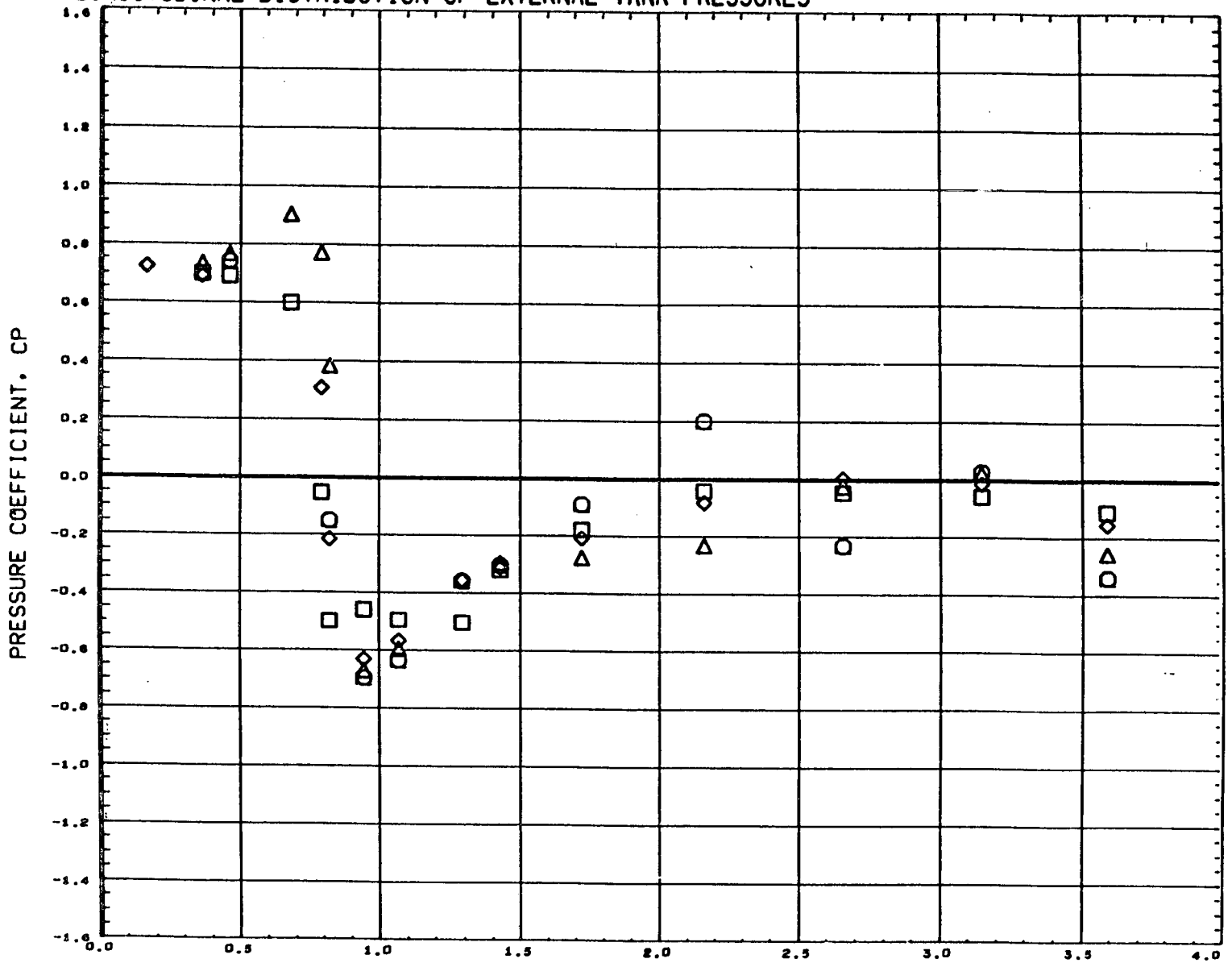


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	1.200	BETA	0.000	ORBINC 0.000
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

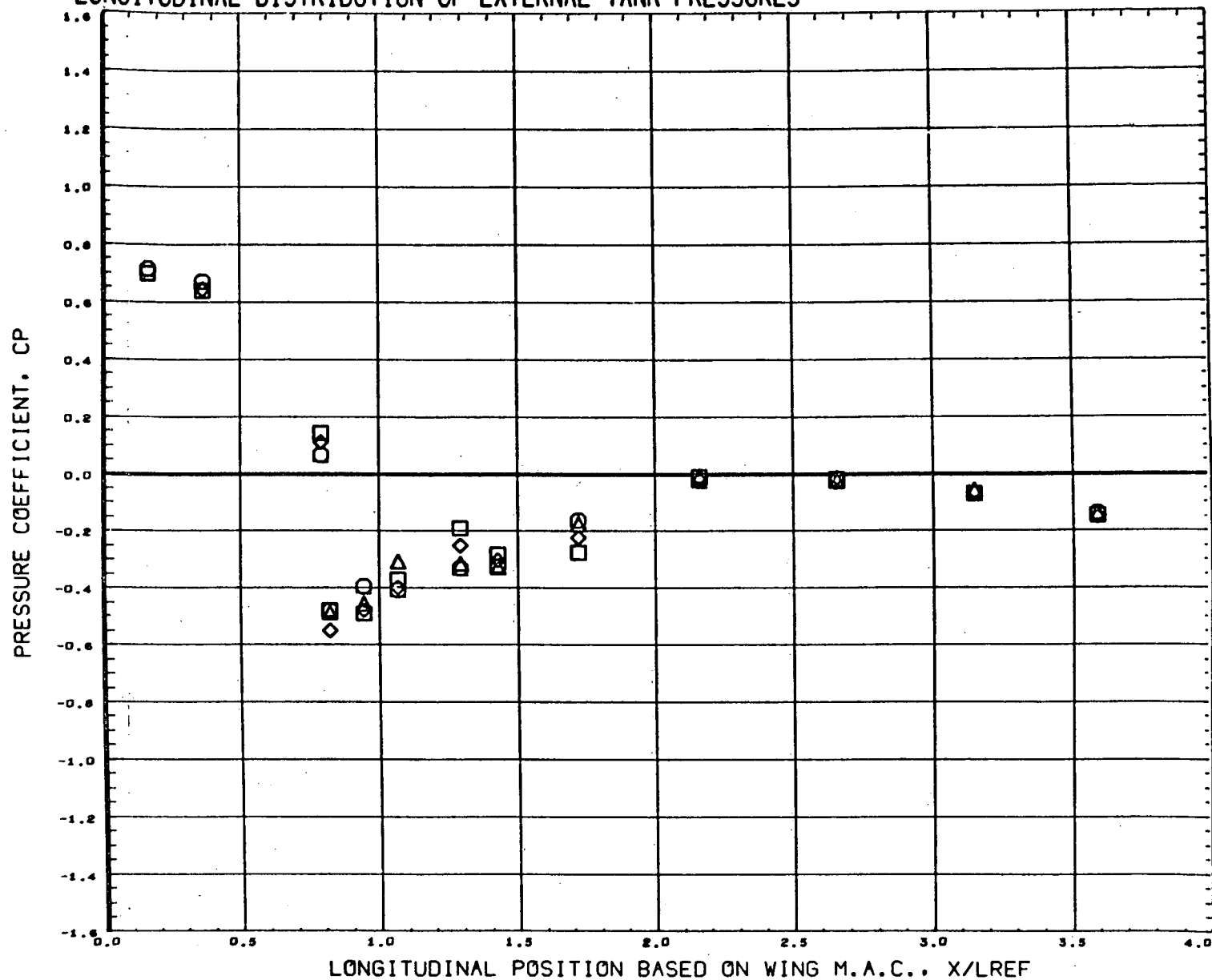
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	0.000	1.200	BETA	0.000	ORBINC 0.000
△	75.000			SRBCAP	0.025	
◇	90.000					
□	106.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



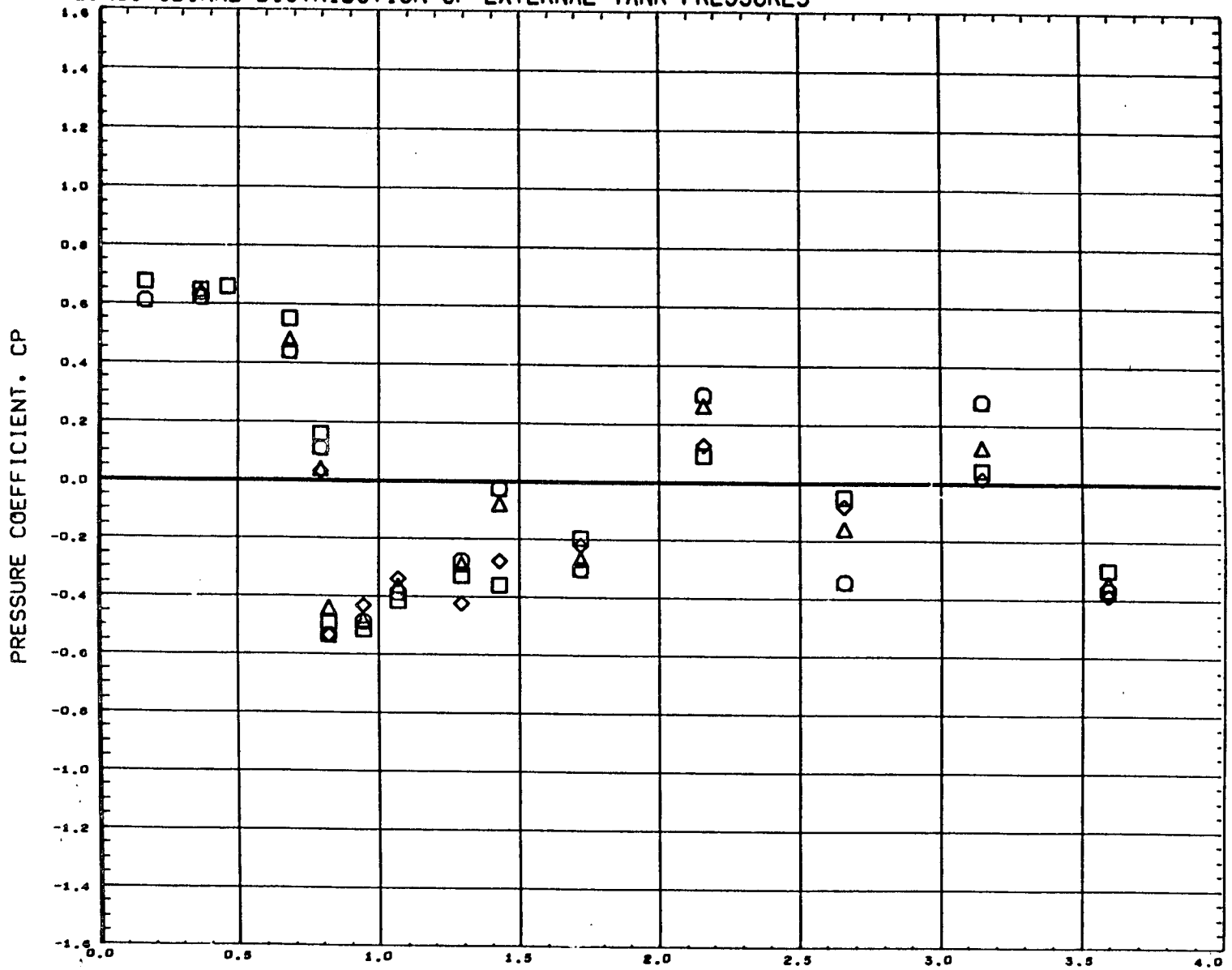
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126.000	0.000	1.200	BETA	0.000	ORBINC 0.000
△	144.000			SRBCAP	0.025	
◇	162.000					
□	180.000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 219

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

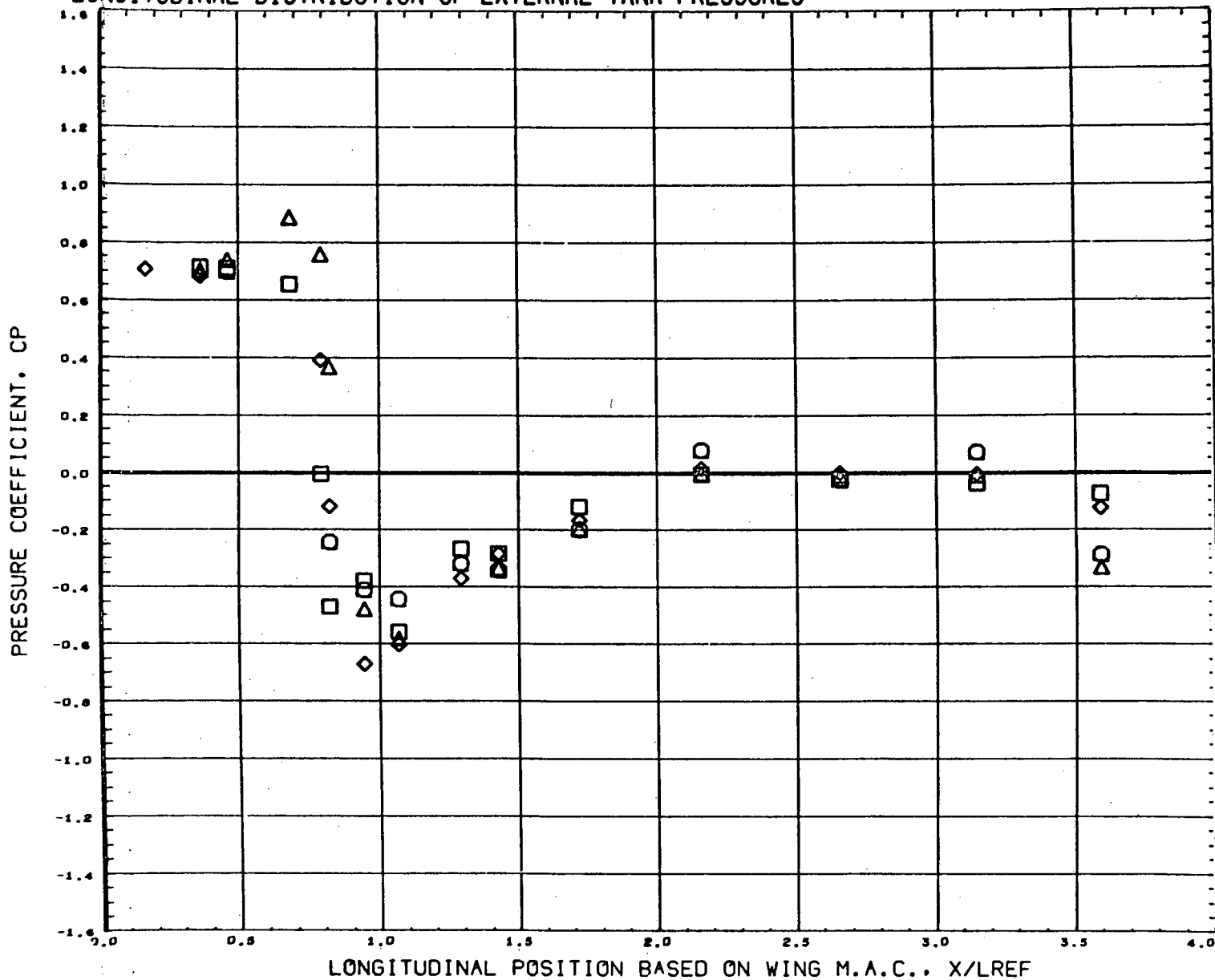


SYMBOL PHI ALPHA MACH
 ○ 0.000 4.000 1.200
 △ 15.000
 ◇ 30.000
 □ 45.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC 0.000
 SRBCAP 0.025

REFERENCE FILE

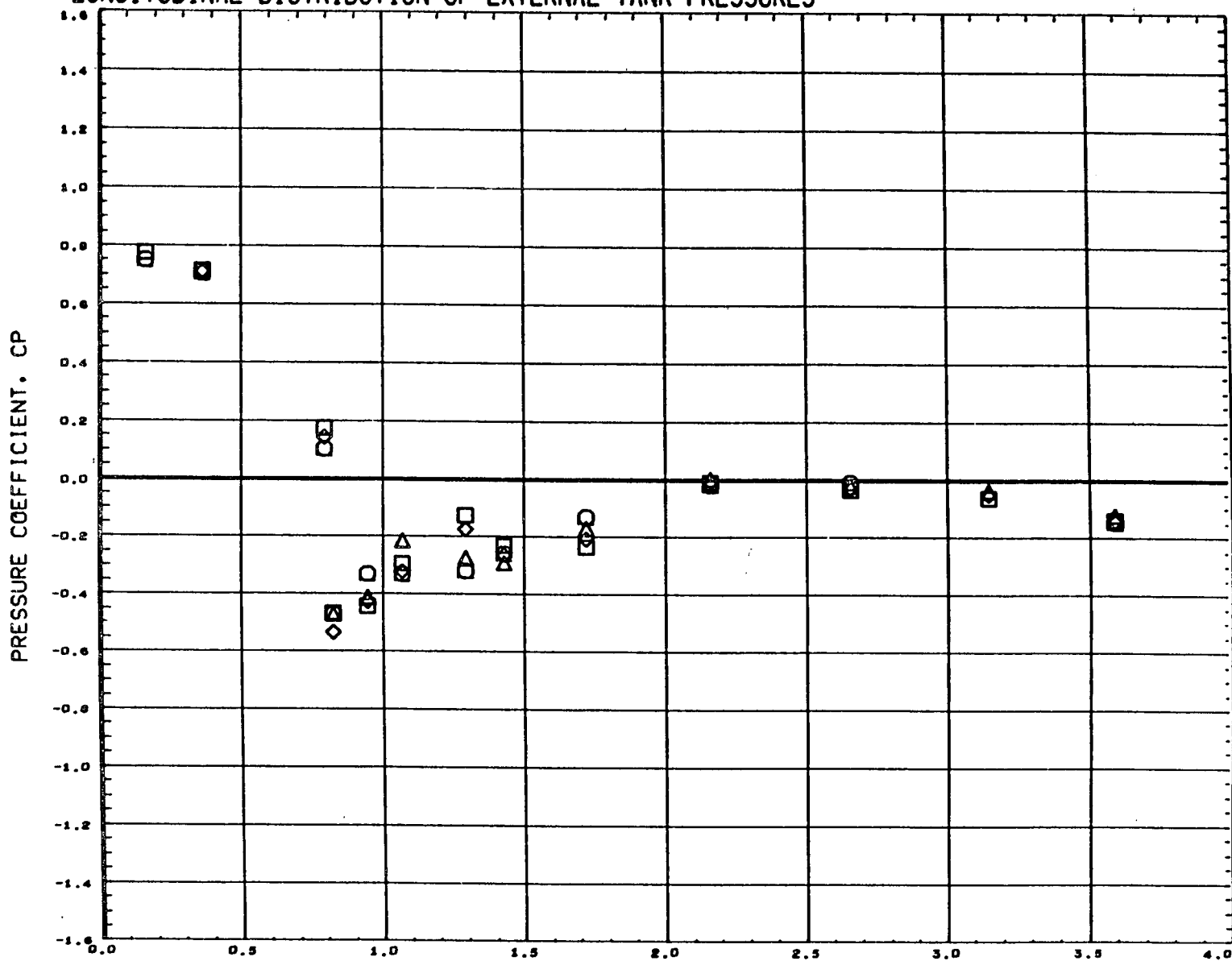
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	4.000	1.200	BETA	0.000	ORBINC 0.000
△	75.000			SRBCAP	0.025	
◇	90.000					
□	100.000					

REFERENCE FILE

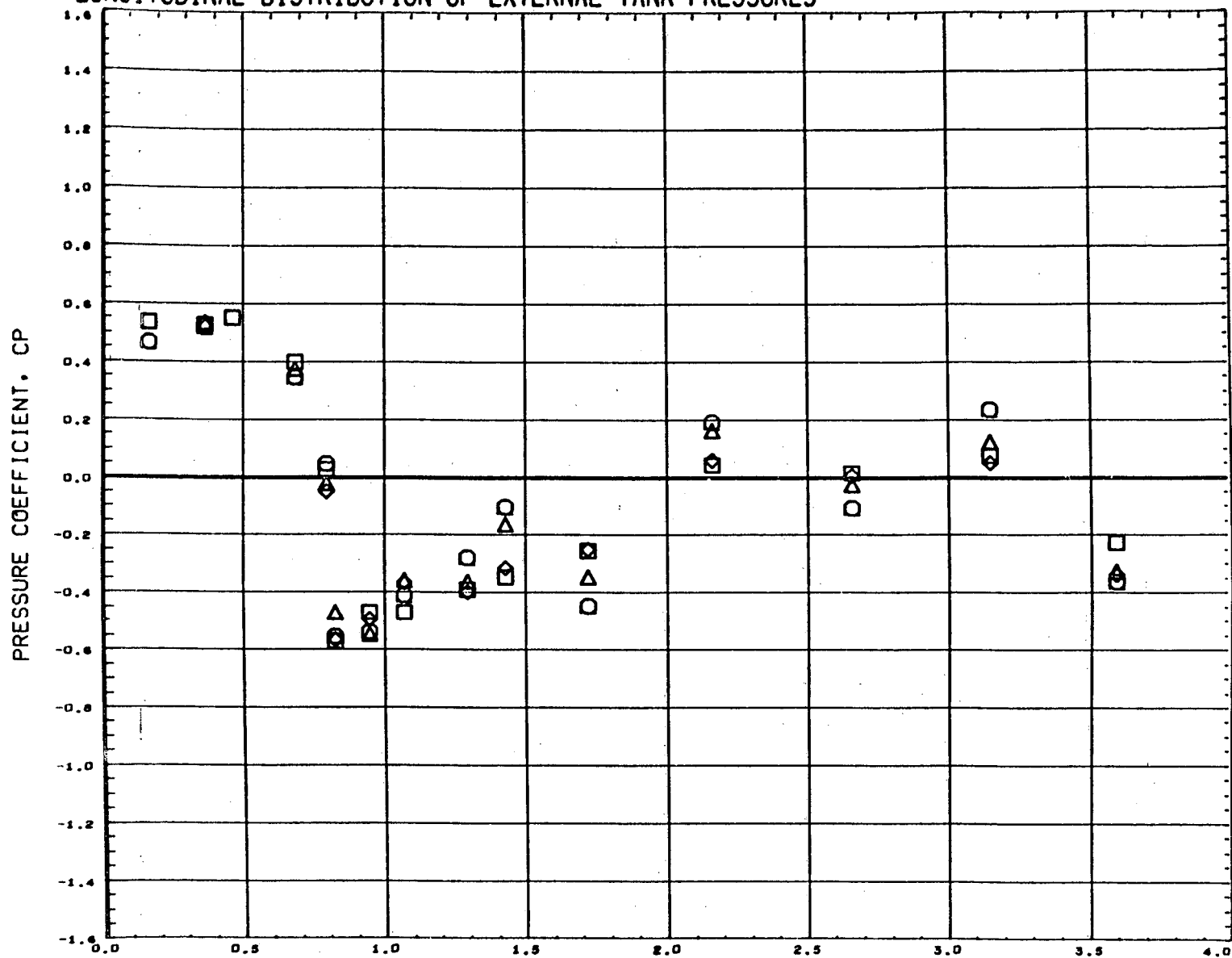
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	ORBINC	
○	126.000	4.000	1.200	0.000	0.000	
△	144.000			0.025		
◇	162.000					
□	180.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

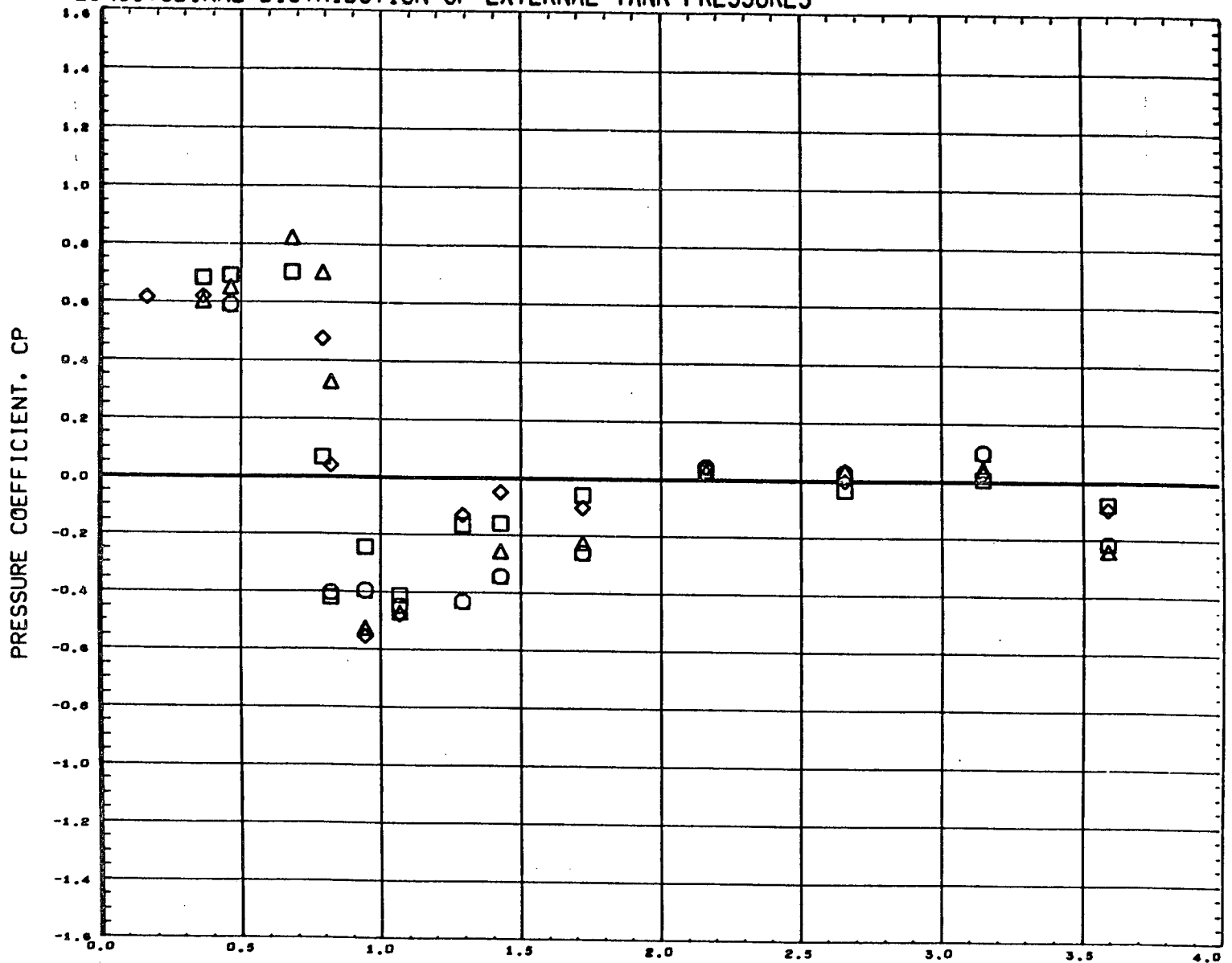


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	1.200	BETA	0.000	ORBINC 0.000
◇	15.000			SRBGAP	0.025	
△	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	1.200
△	75.000		
◇	90.000		
□	108.000		

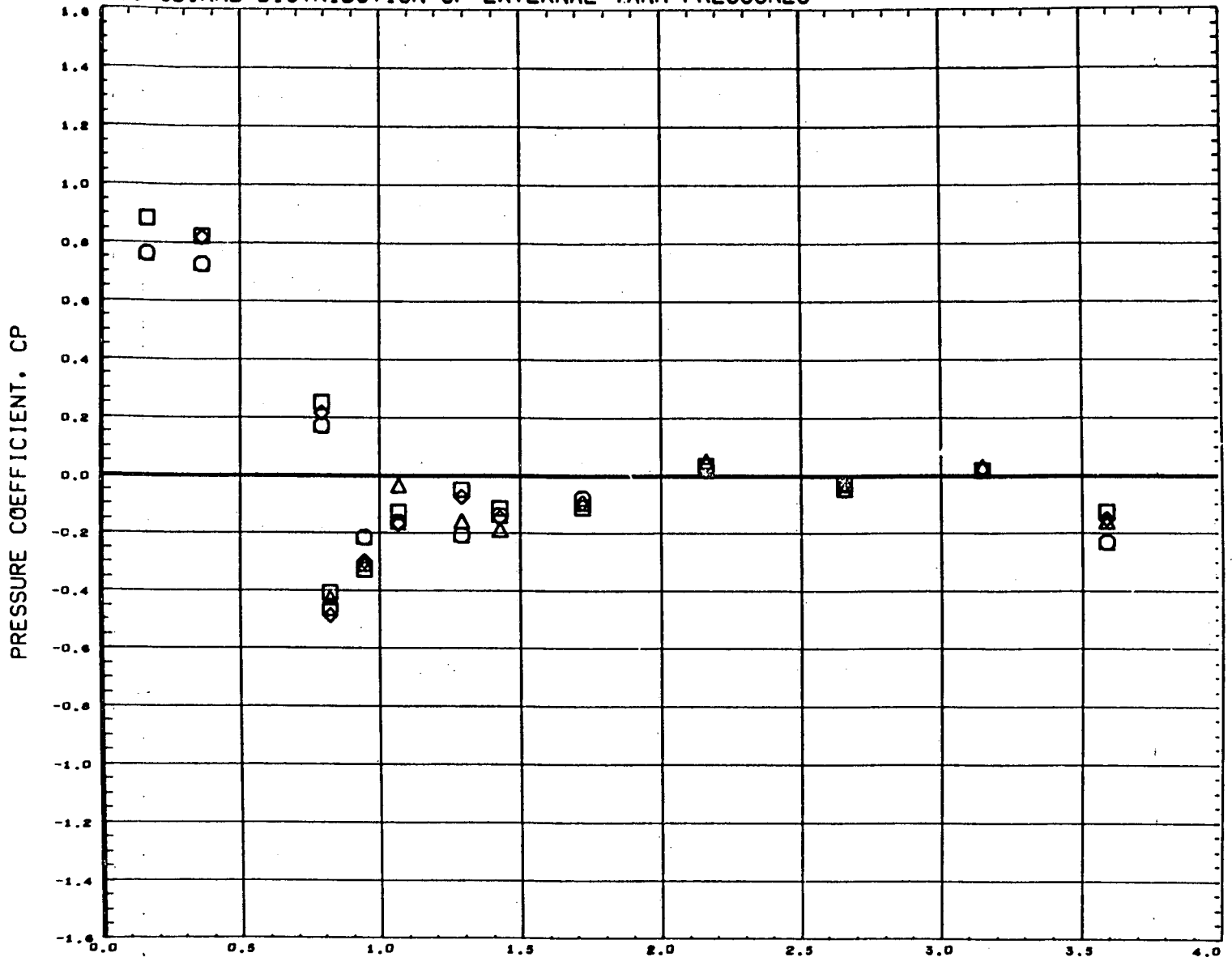
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 224

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

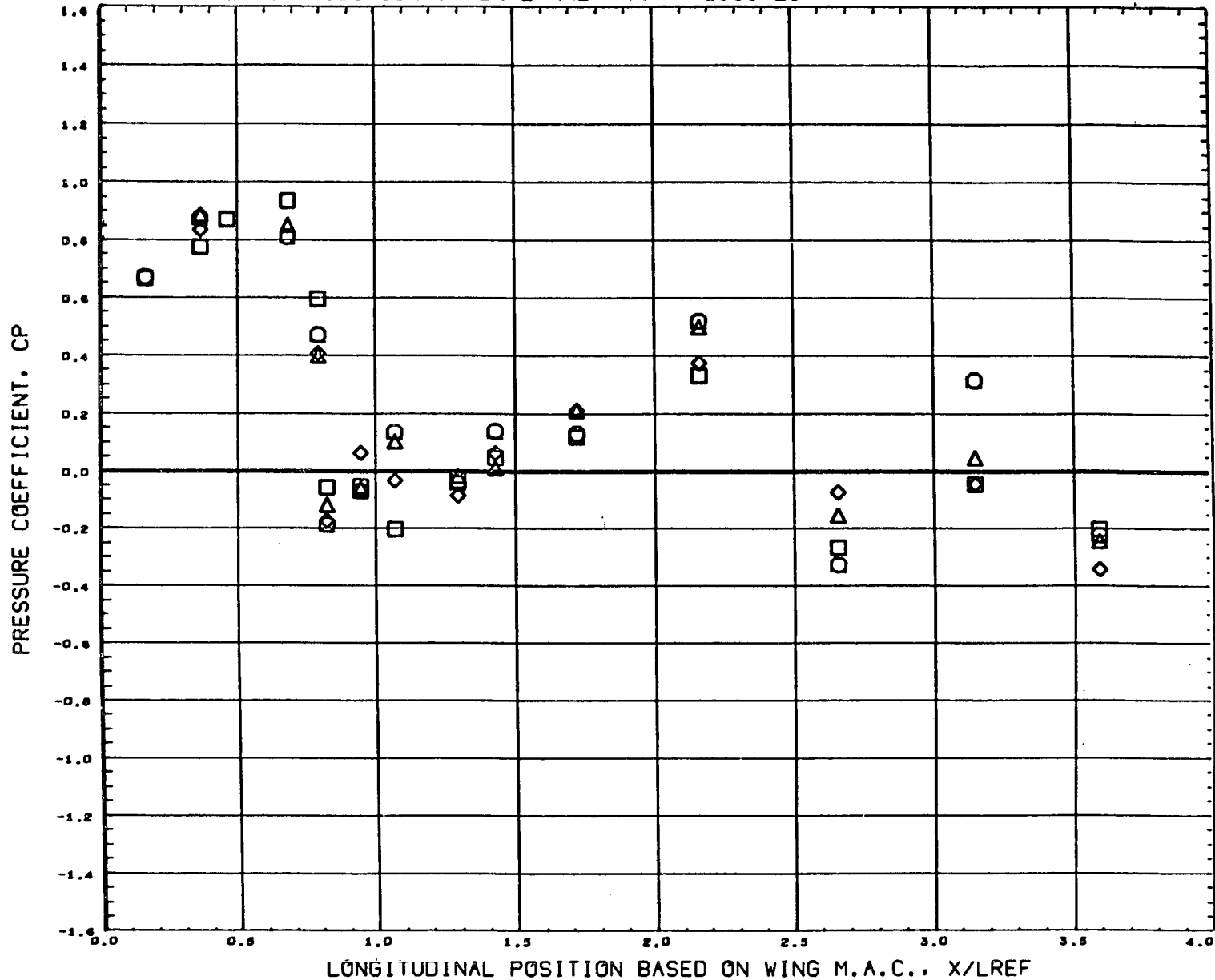


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126,000	10,000	1.200	BETA	0.000	ORBINC 0.000
△	144,000			SRBGAP	0.025	
◇	162,000					
□	180,000					

REFERENCE FILE

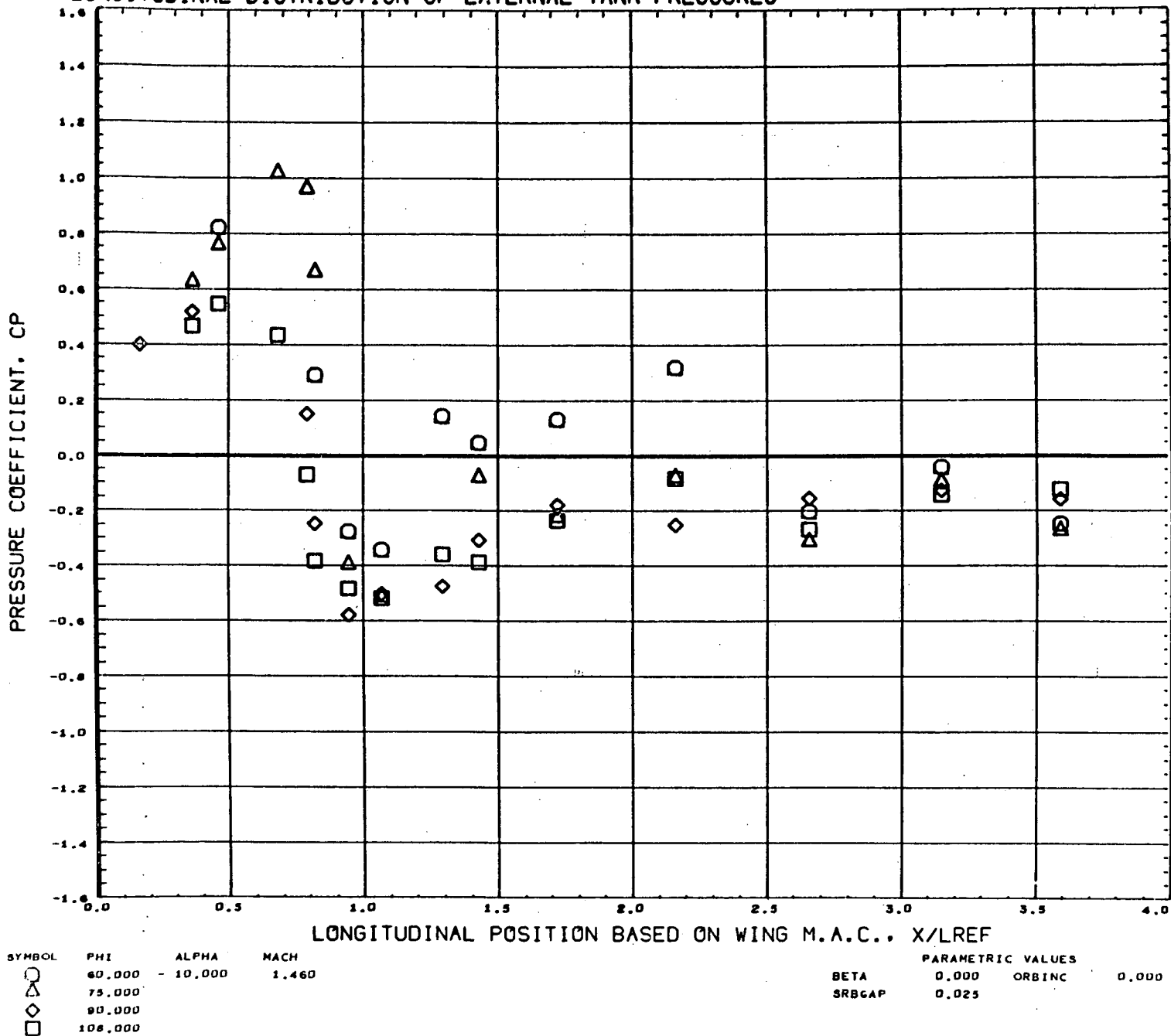
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	0.000	- 10.000	1.460	SRBGAP	0.000	ORBINC 0.000
△	15.000				0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



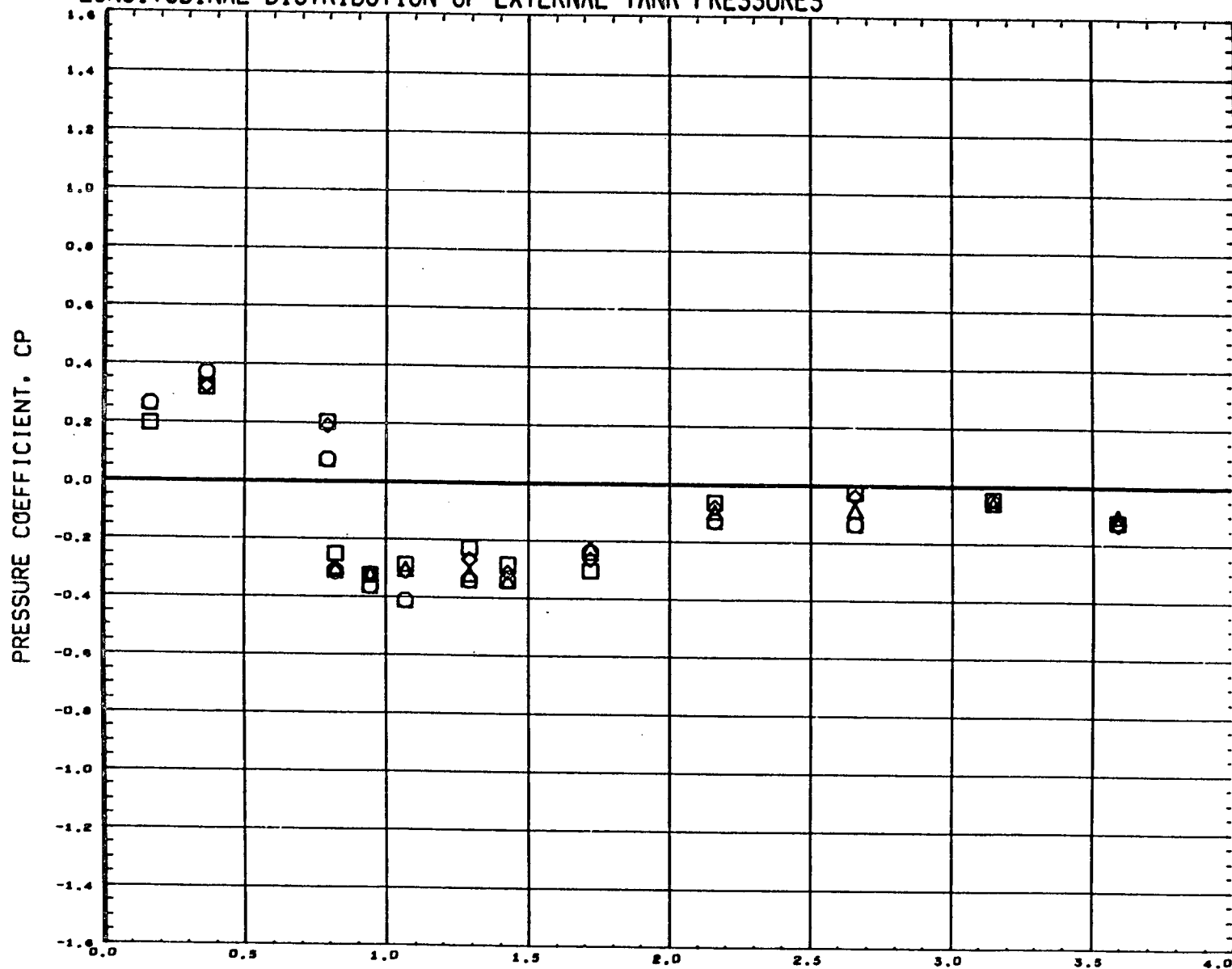
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 227

F

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



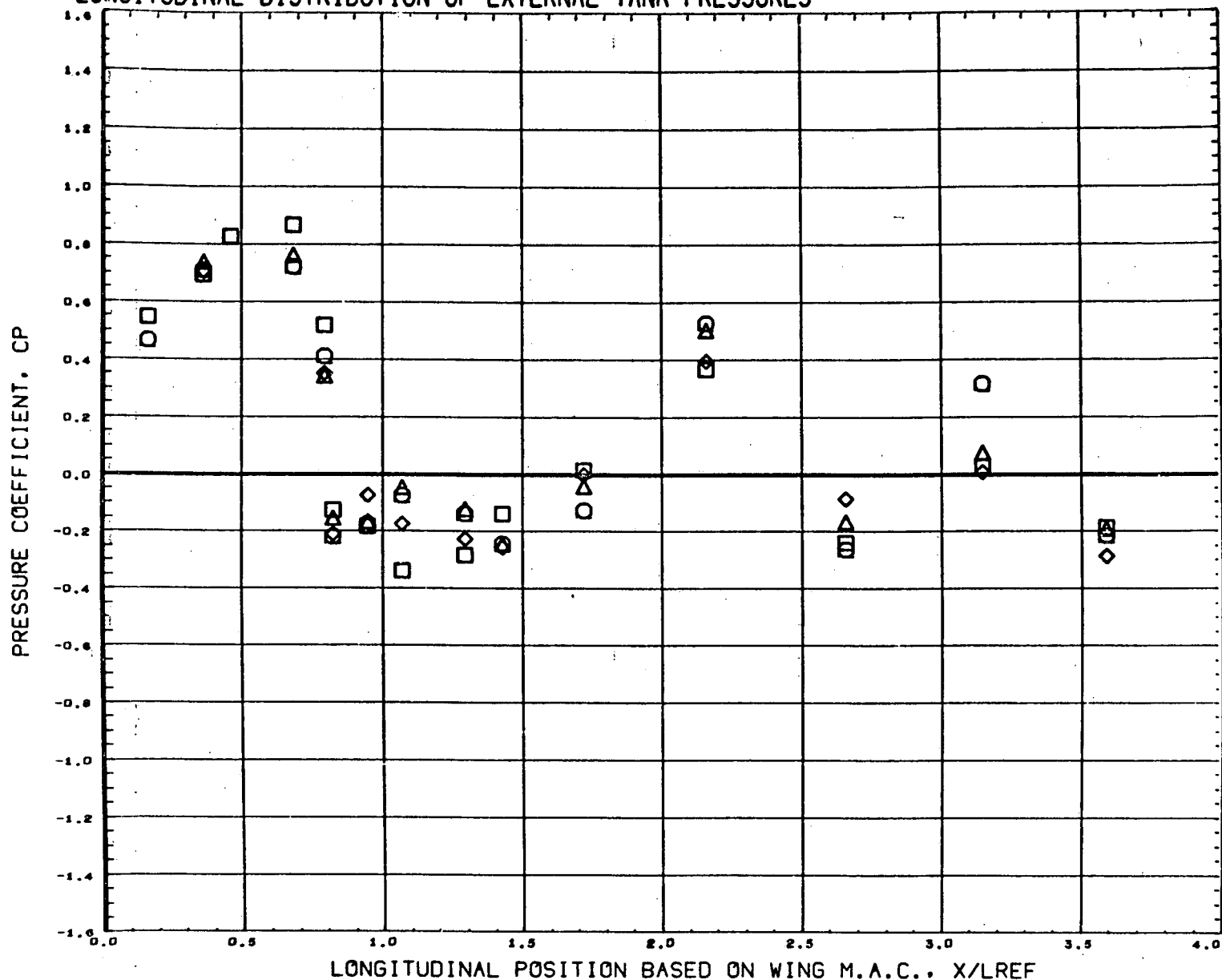
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	- 10.000	1.460
△	144.000		
◇	162.000		
□	180.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC 0.000
SRBCAP	0.025

REFERENCE FILE

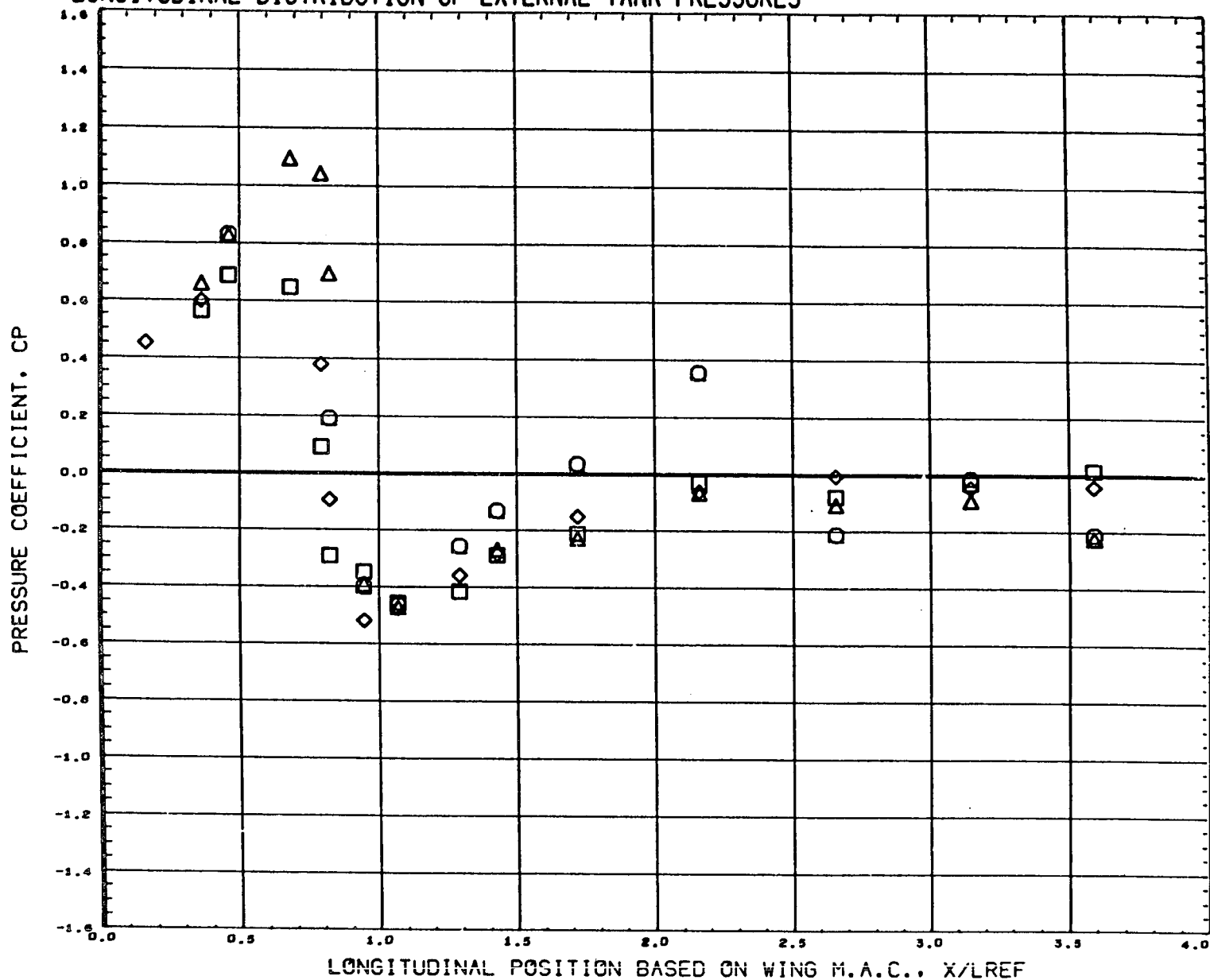
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	1.460	BETA	0.000	ORBINC 0.000
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

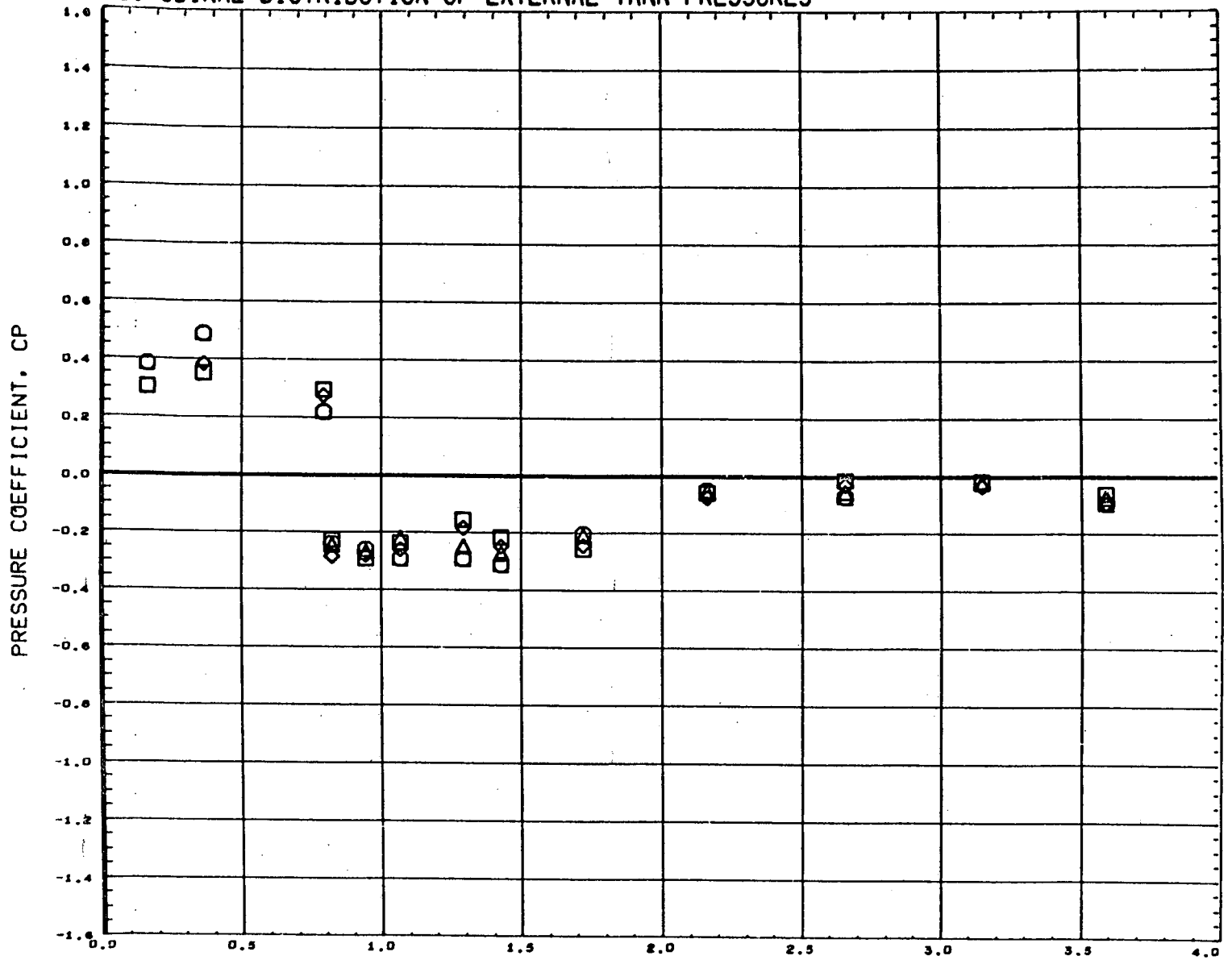


SYMBOL PHI ALPHA MACH
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 △ 75,000
 ◇ 90,000
 □ 100,000

PARAMETRIC VALUES
 BETA 0,000 ORBINC 0,000
 SRBGAP 0,025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	4.000	1.460
△	144.000		
◇	162.000		
□	180.000		

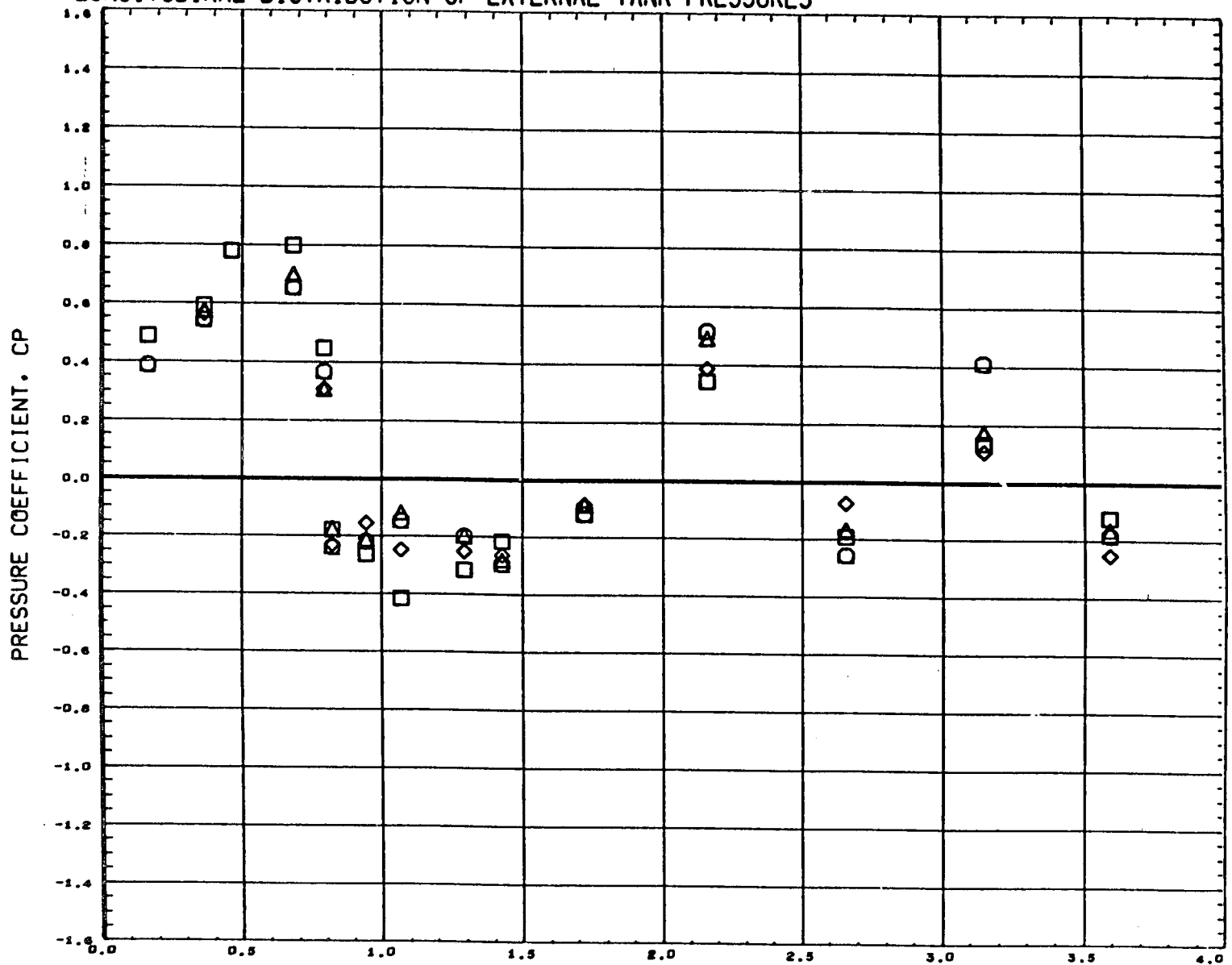
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 231

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

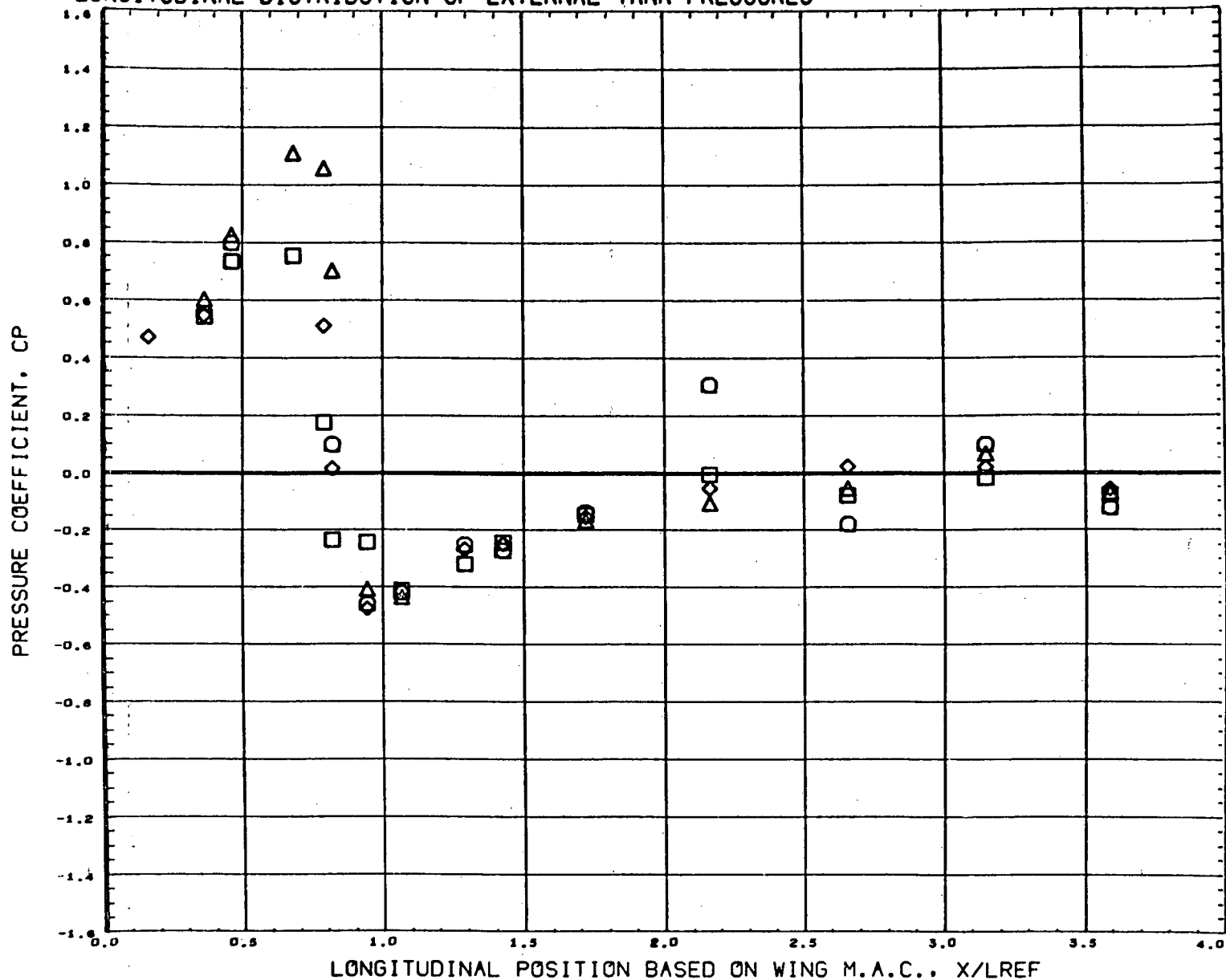
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	0.000	0.000	1.460	0.000	ORBINC	0.000
△	15.000			0.025		
◇	30.000					
□	45.000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 232

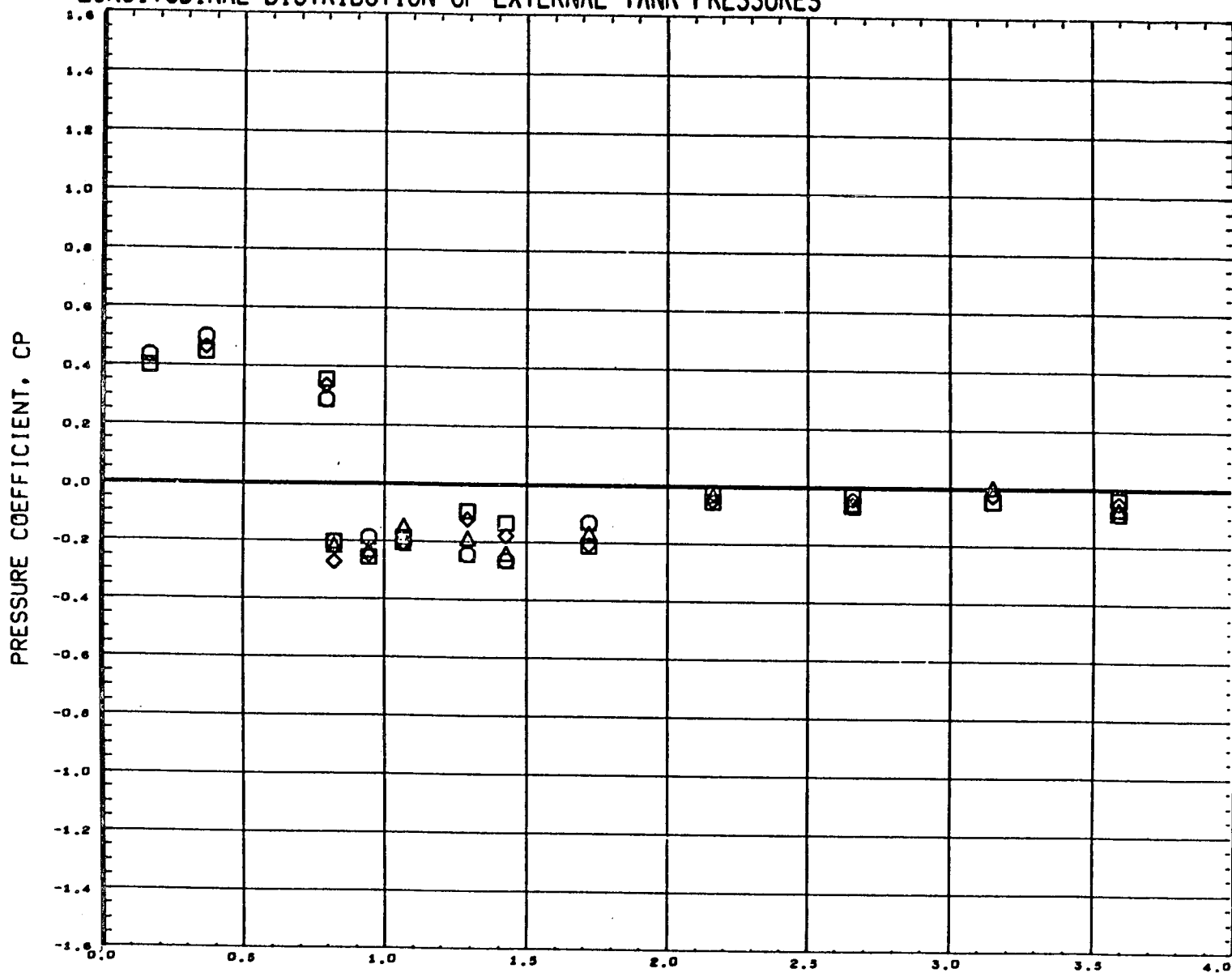
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	0.000	1.460	BETA	0.000	ORBINC 0.000
△	75.000			SRBGAP	0.025	
◇	90.000					
□	100.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126.000	0.000	1.460
△	144.000		
◇	162.000		
□	180.000		

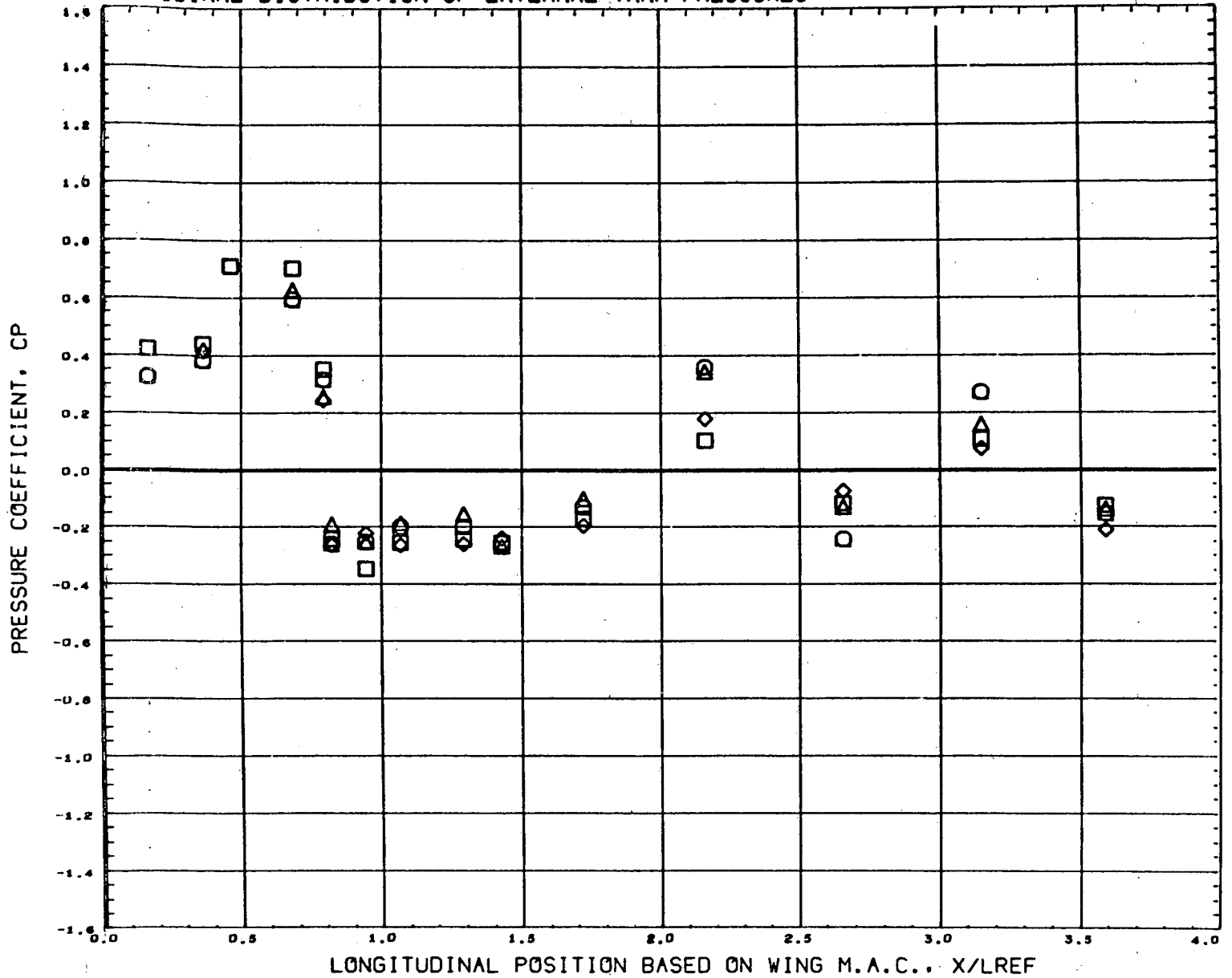
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 234

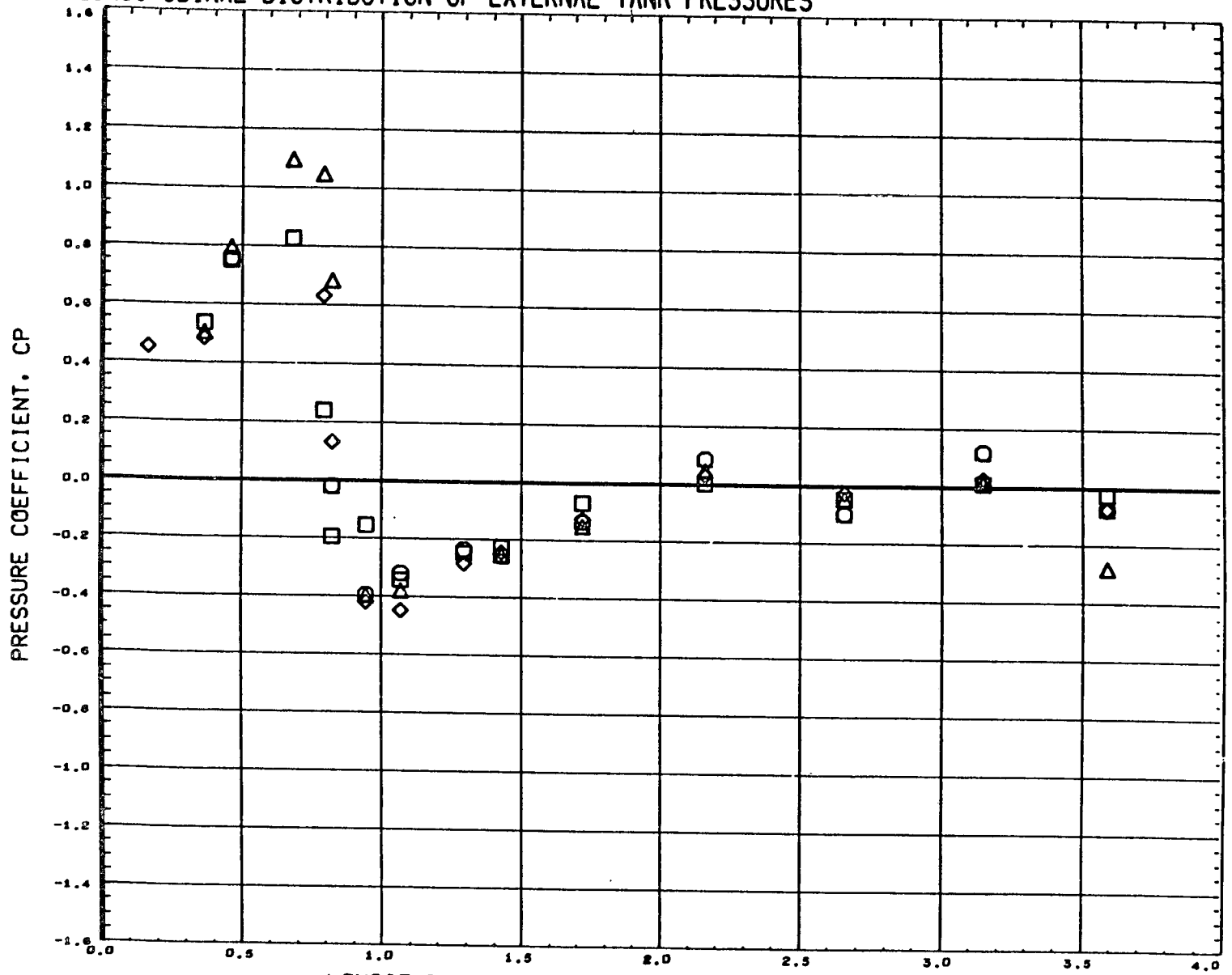
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	1.460	BETA	0.000	ORBINC 0.000
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60.000	4.000	1.460
△	75.000		
◇	90.000		
□	100.000		

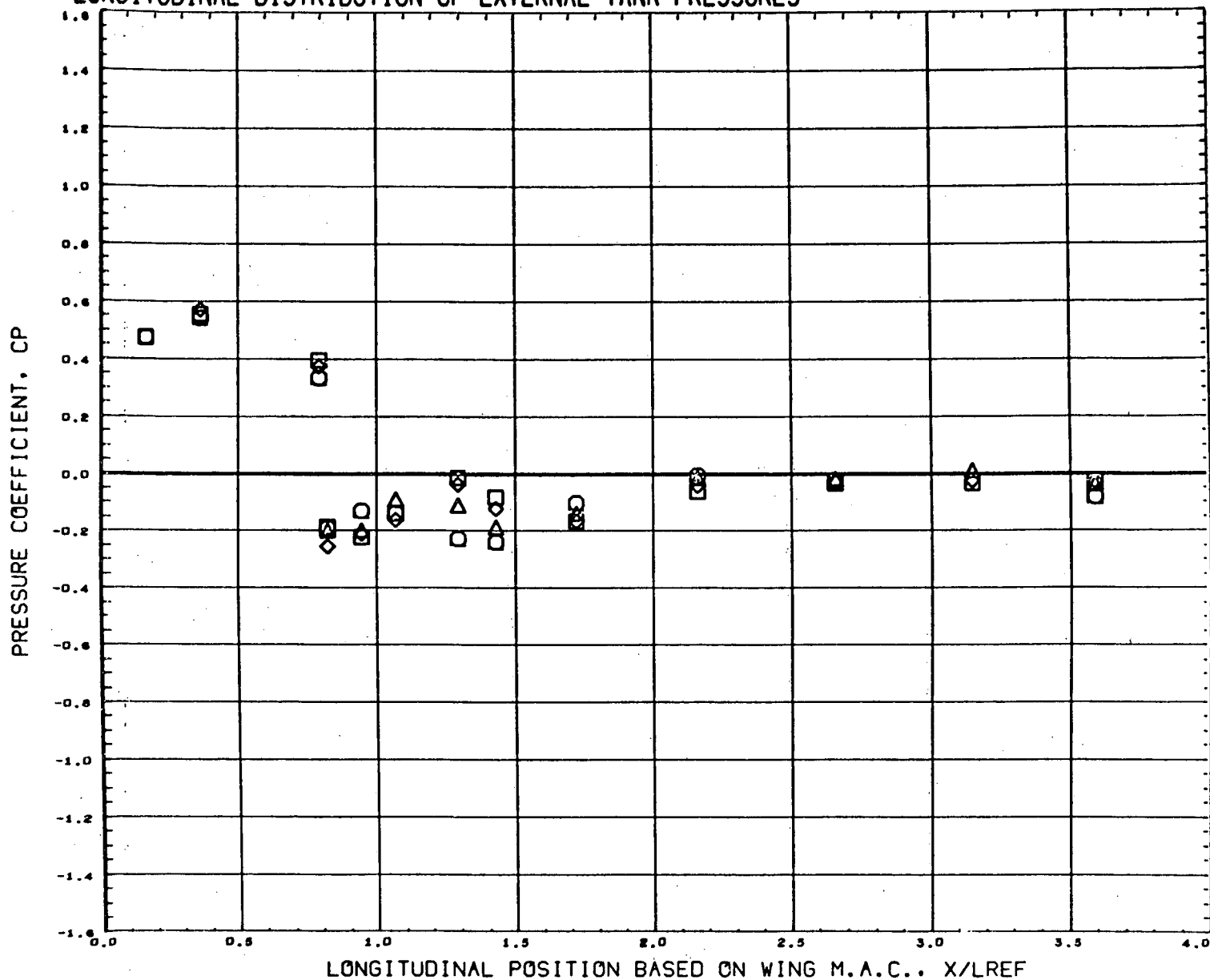
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 236

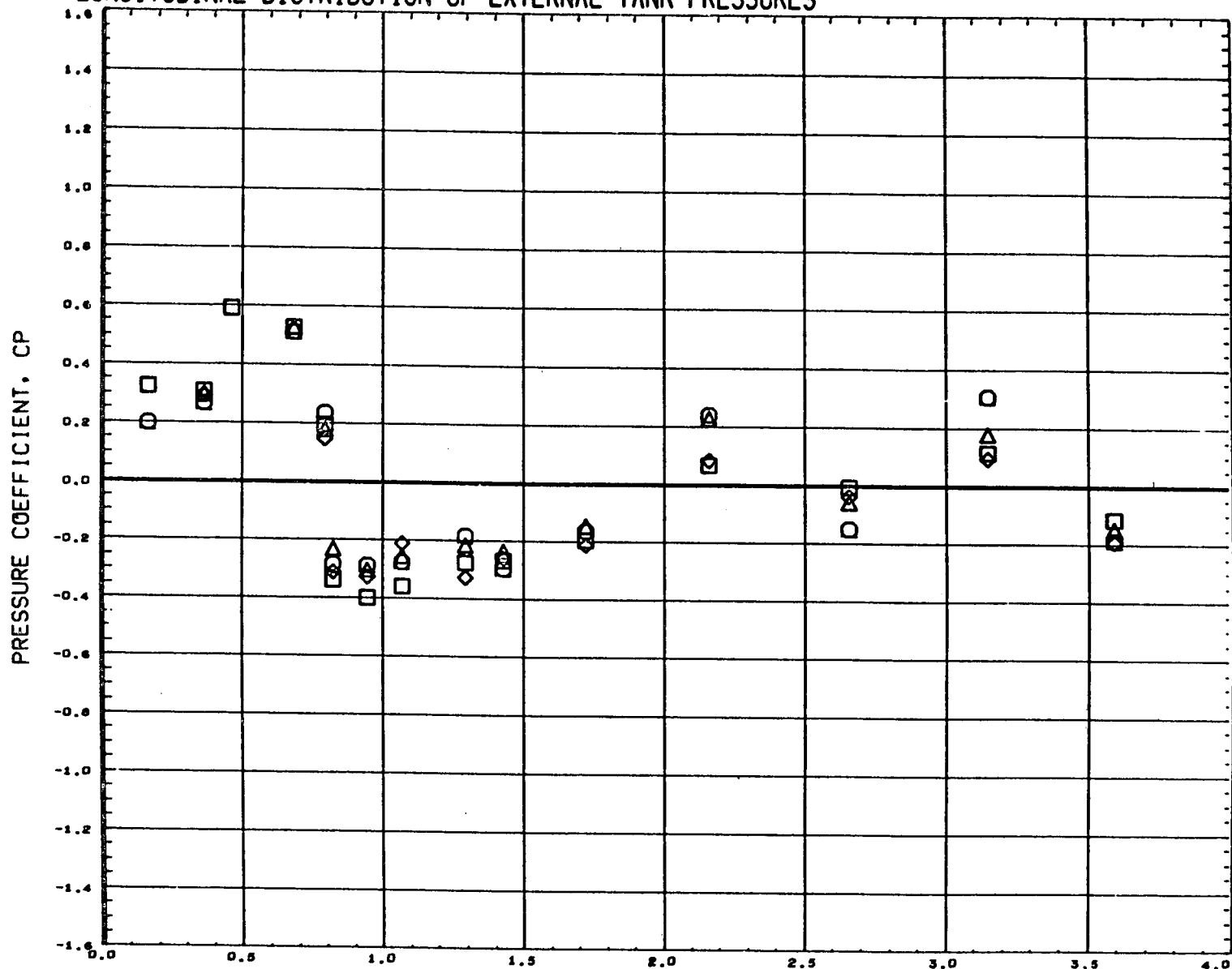
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	126.000	4.000	1.460	BETA	0.000	ORBINC 0.000
△	144.000			SRBCAP	0.025	
◇	162.000					
□	180.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	10.000	1.460
△	15.000		
◇	30.000		
□	45.000		

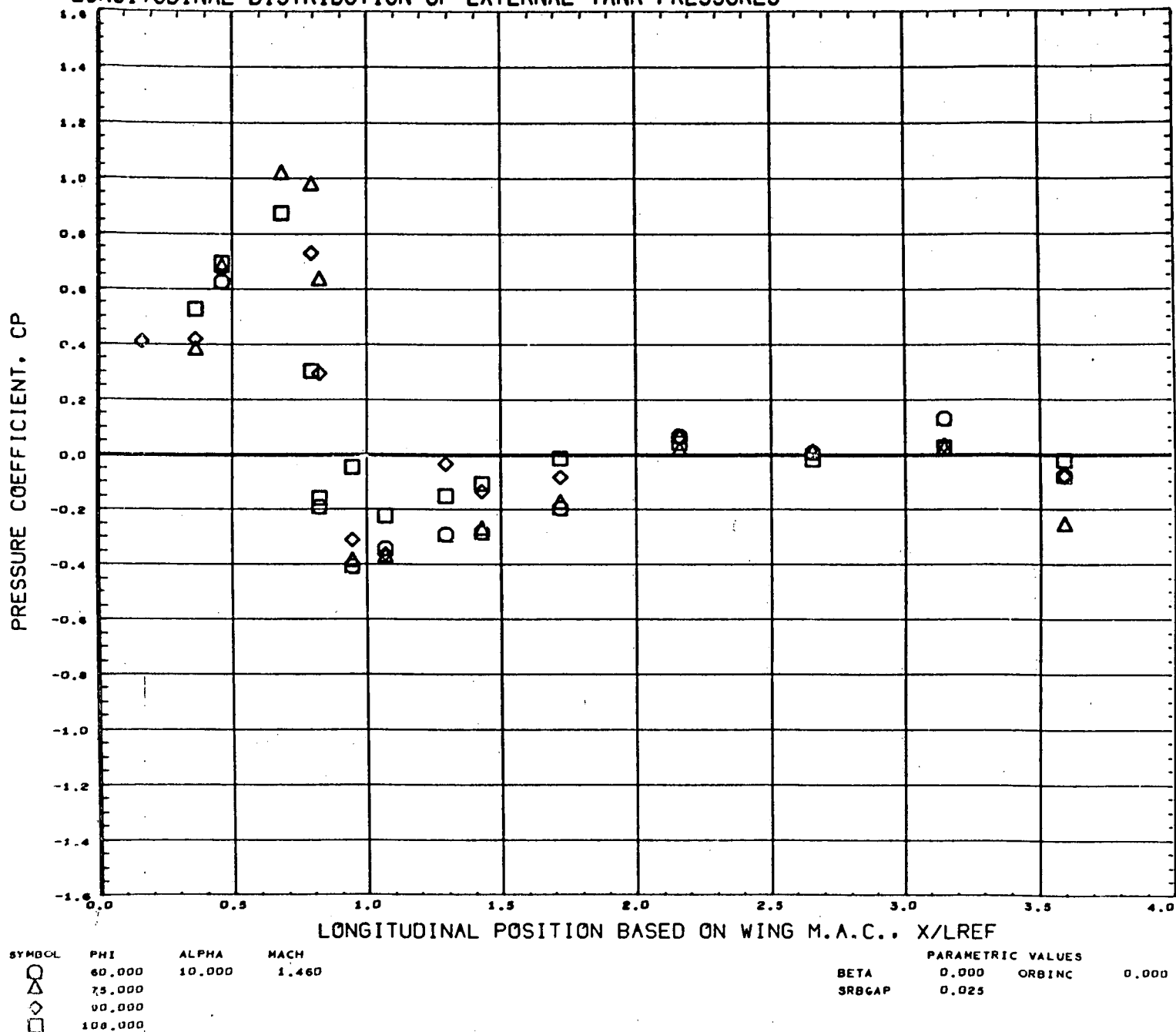
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 238

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

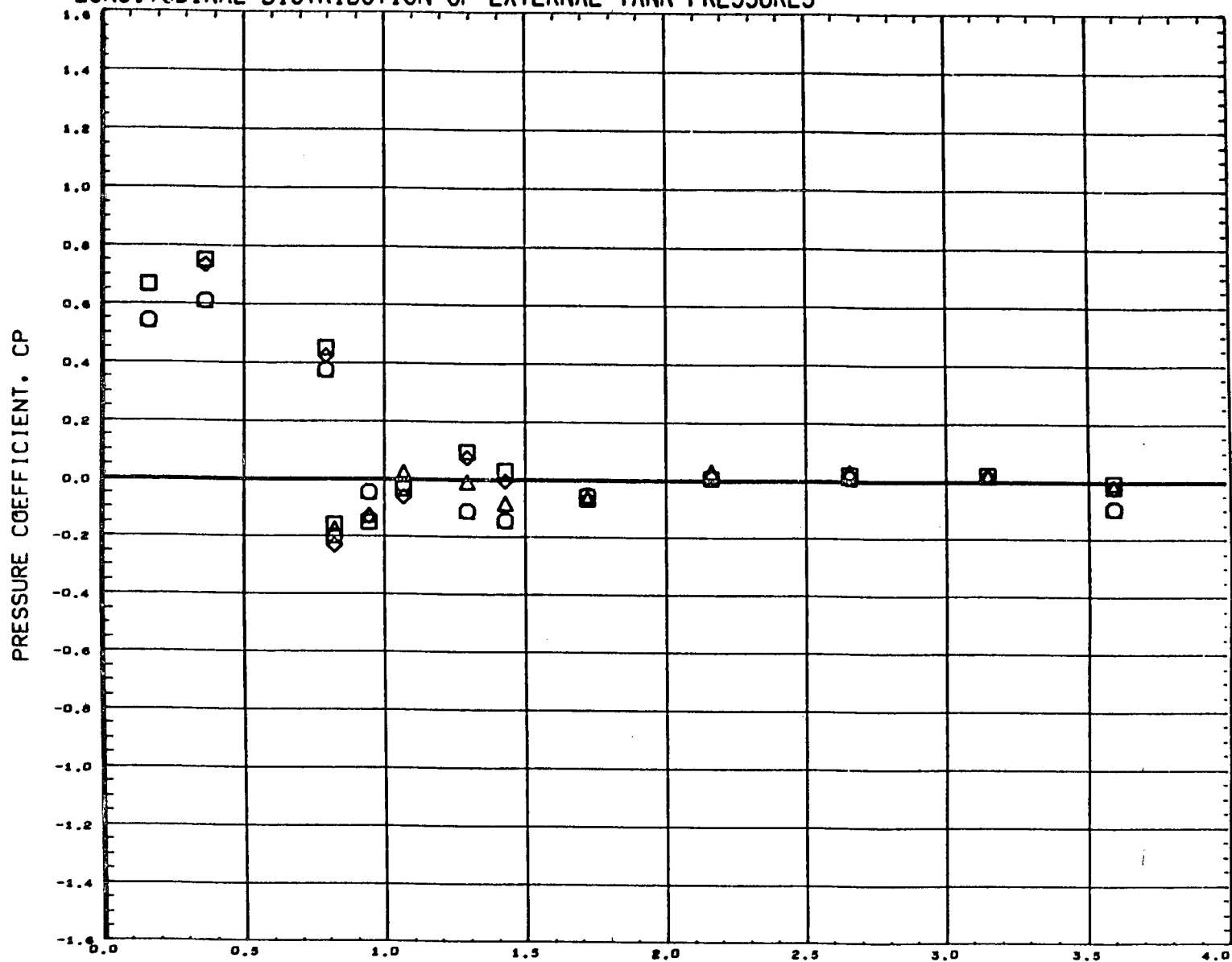


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702TK)

PAGE 239

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	126,000	10,000	1,460
△	144,000		
◇	162,000		
□	180,000		

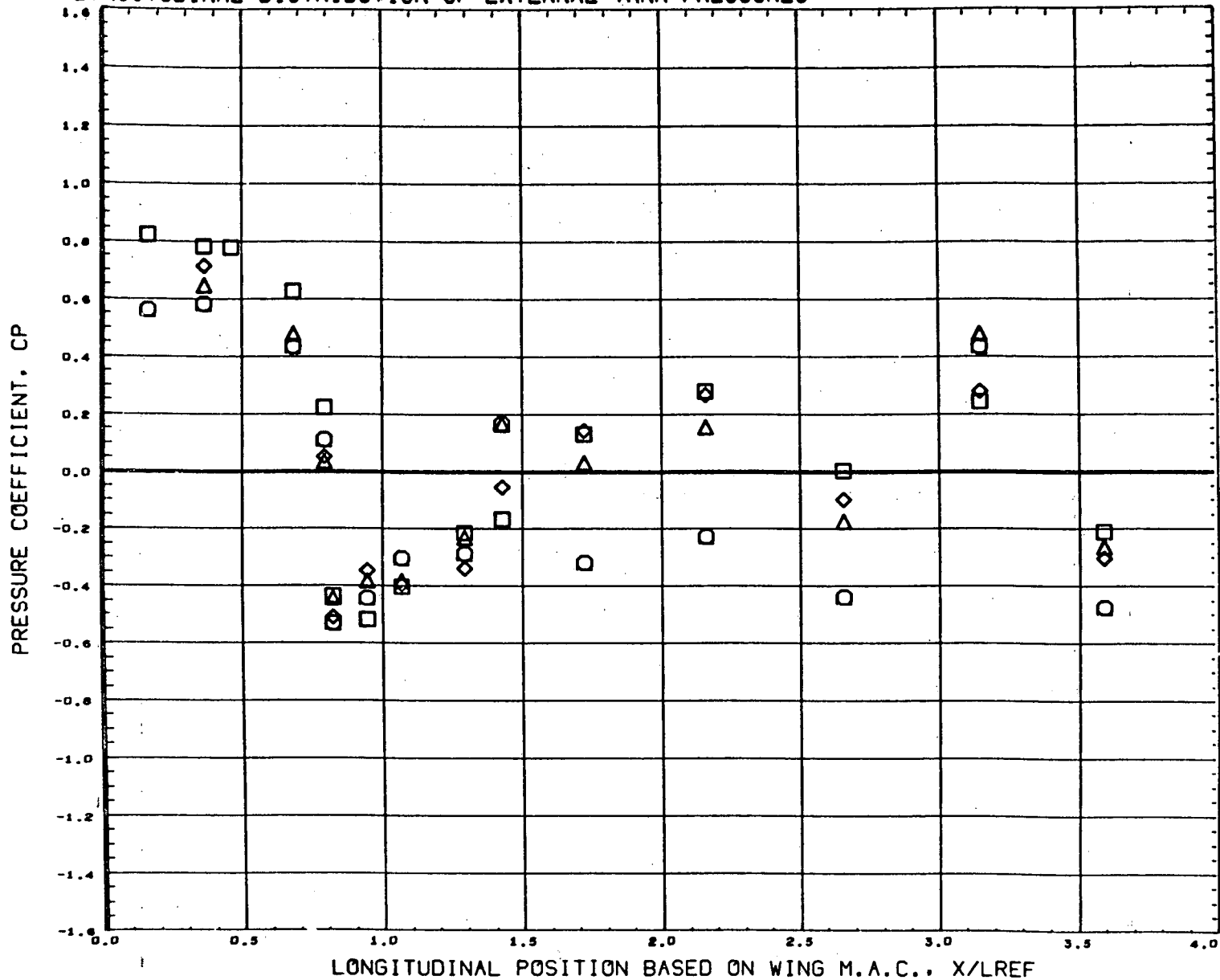
PARAMETRIC VALUES		
BETA	0,000	ORBINC 0,000
SRBGAP	0,025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R702TK)

PAGE 240

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	0.000	- 10.000	1.200	ALPHA 0.000 ORBINC - 1.500
△	15.000			SRBGAP 0.025
◇	30.000			
□	45.000			

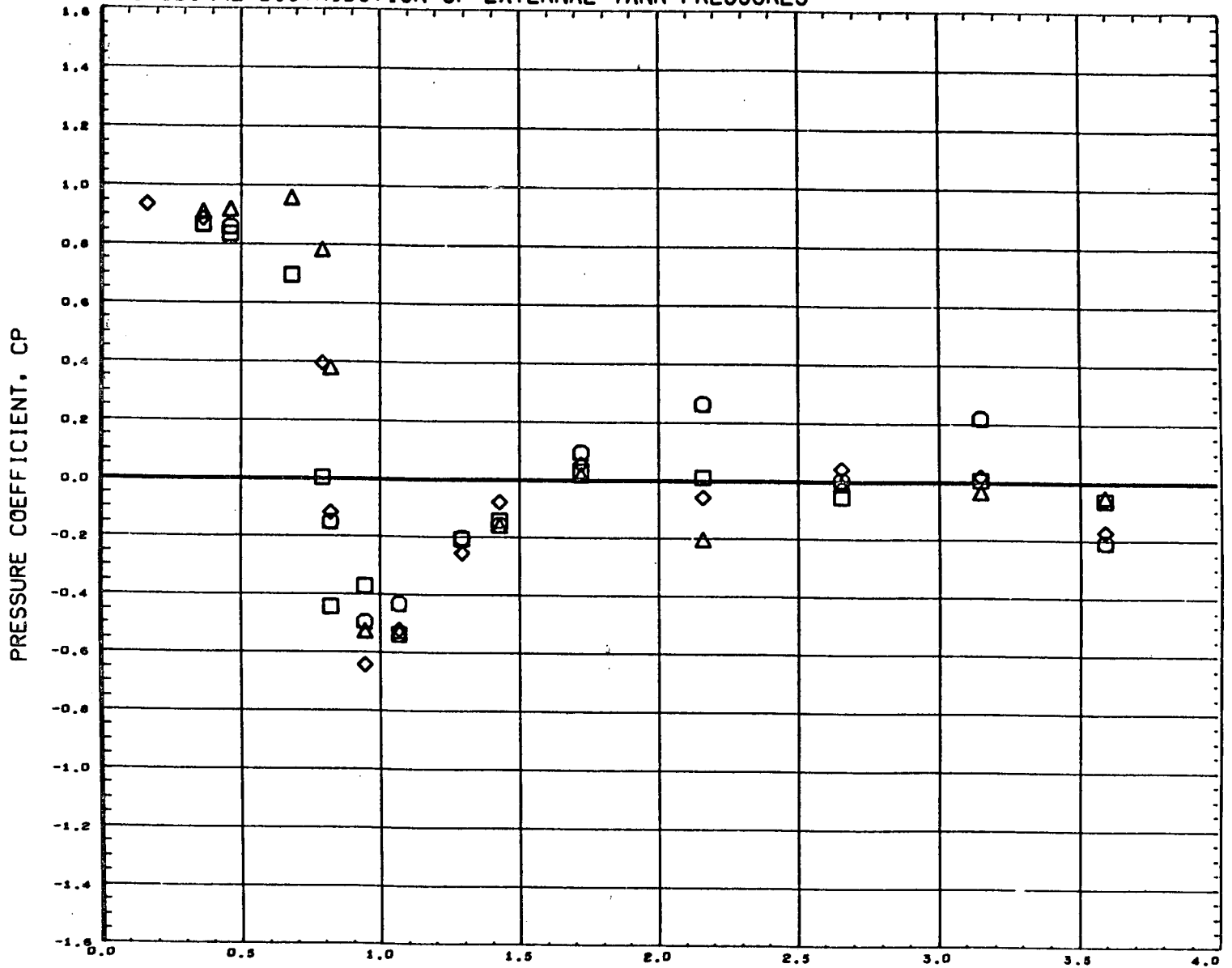
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 241

G

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	60.000	- 10.000	1.200
△	75.000		
◇	90.000		
□	100.000		

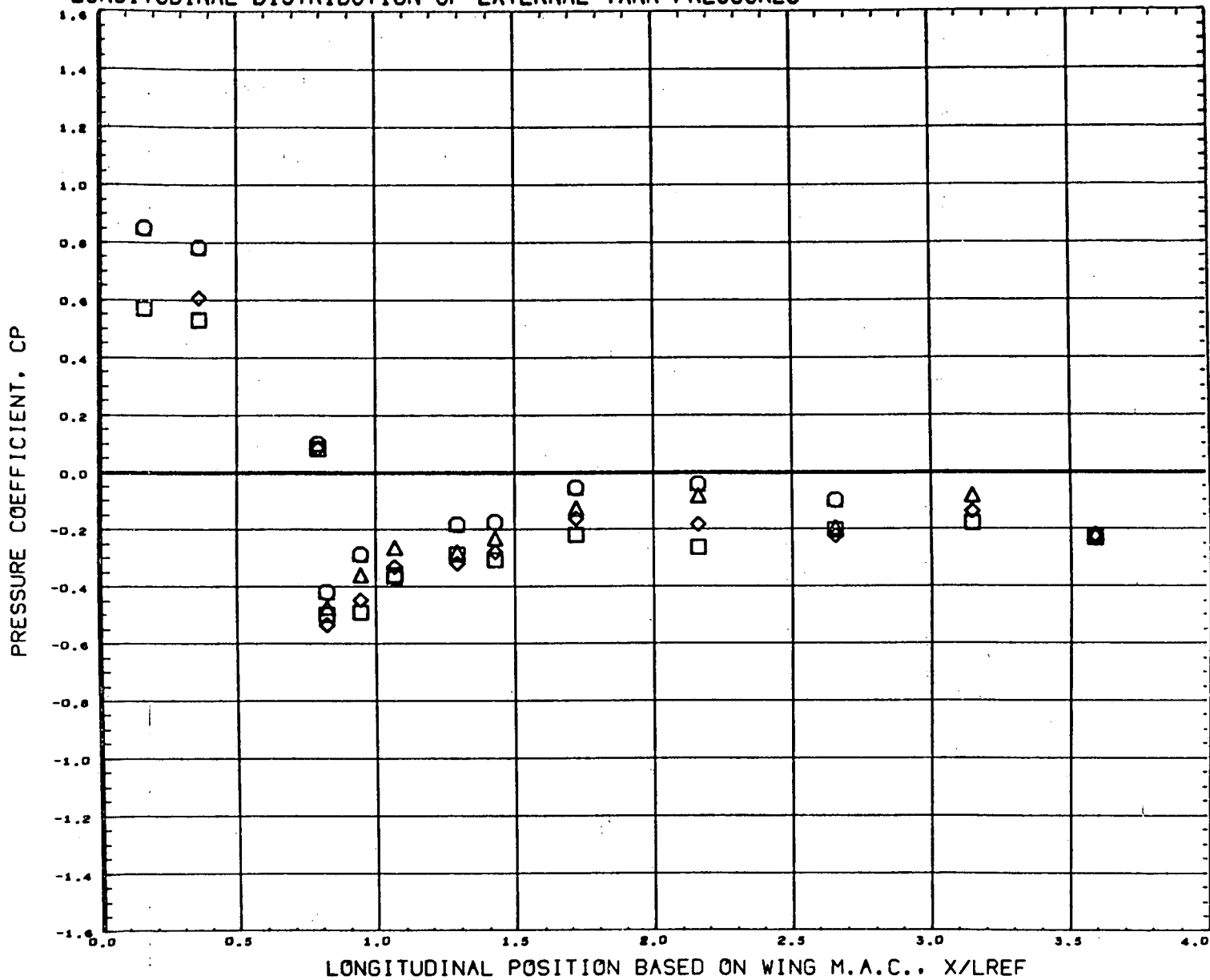
PARAMETRIC VALUES	
ALPHA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 242

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

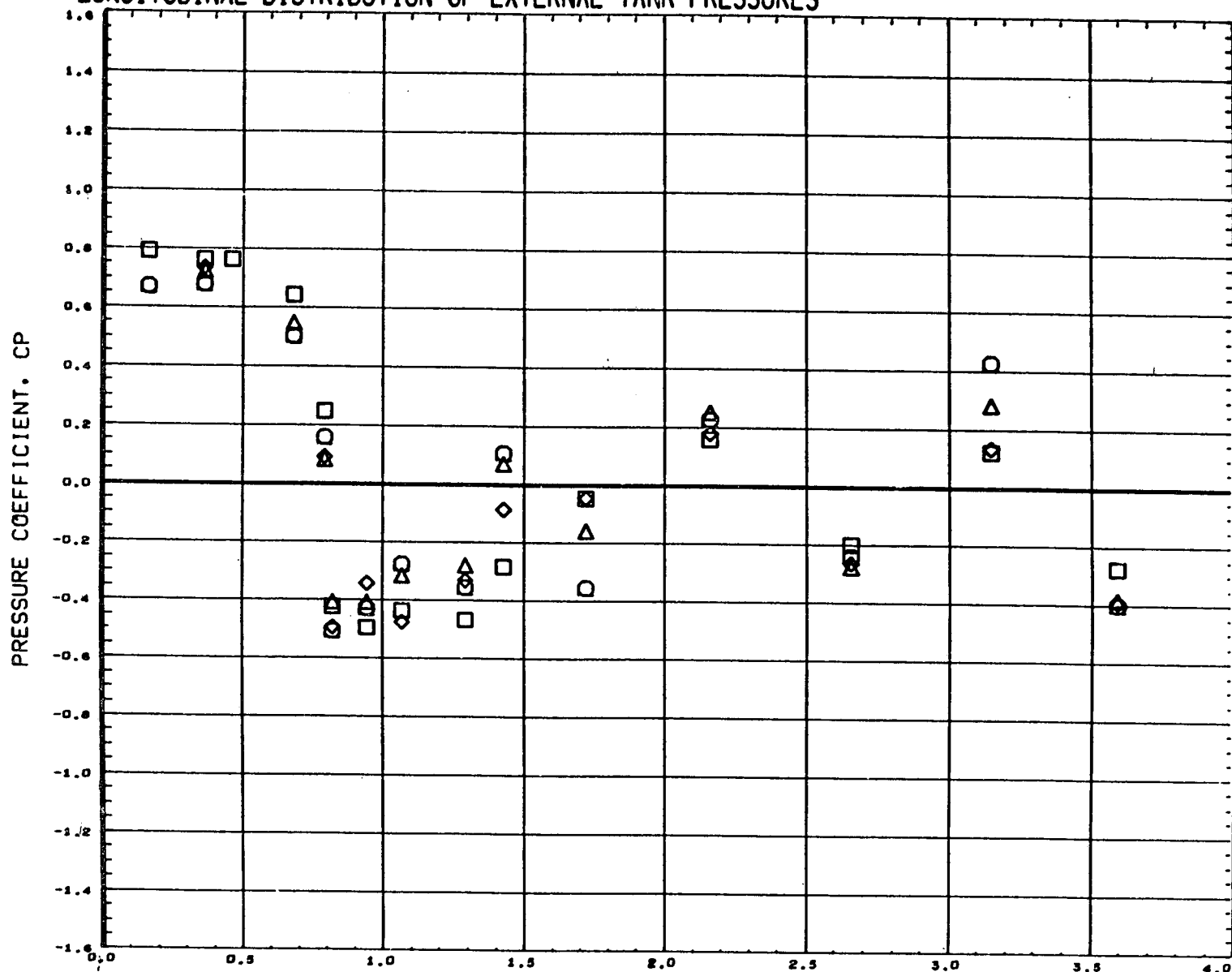


SYMBOL PHI BETA MACH
 ○ 126,000 - 10,000 1.200
 ◇ 144,000
 ◊ 162,000
 □ 180,000

PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	- 4.000	1.200
△	15.000		
◇	30.000		
□	45.000		

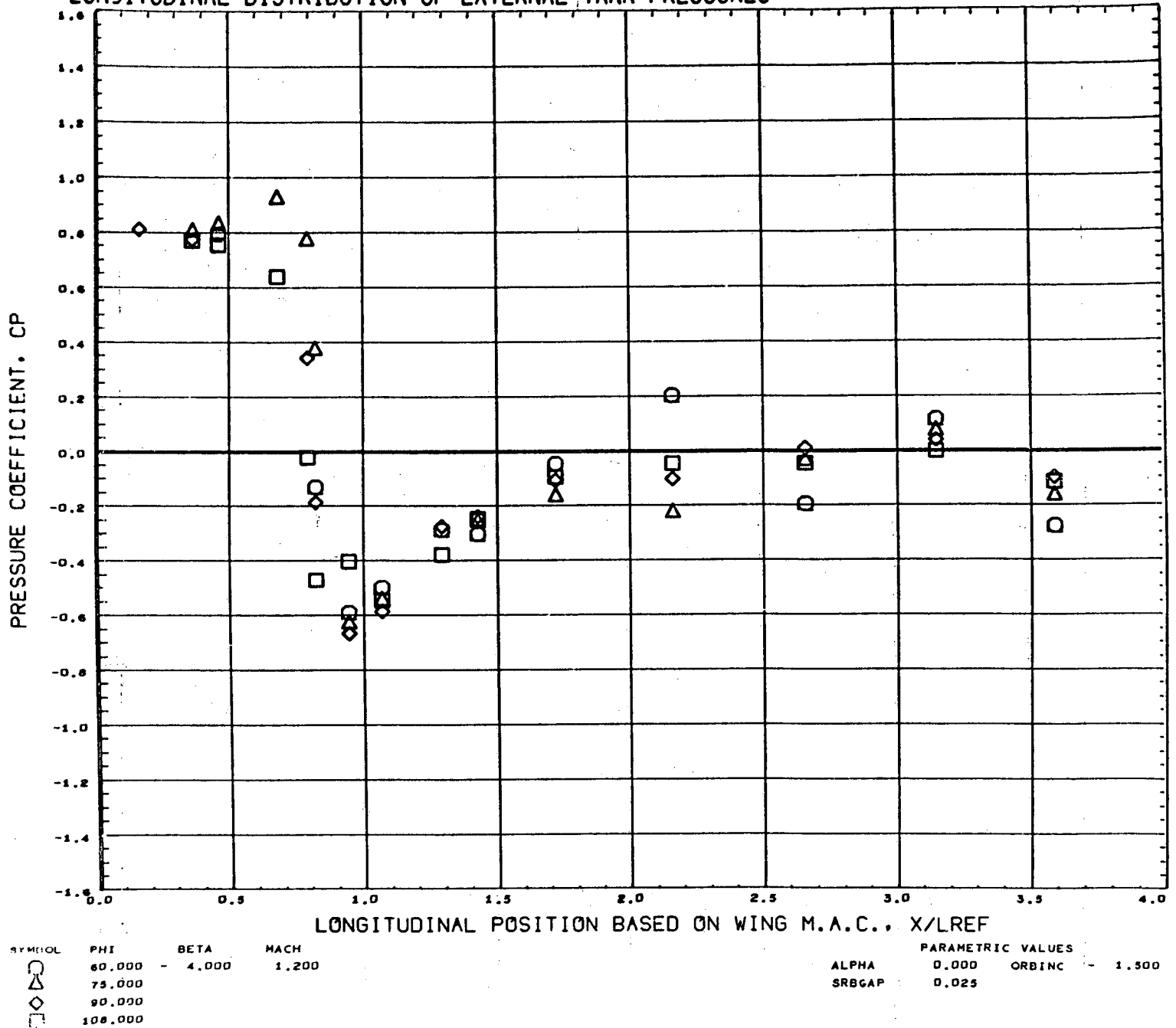
PARAMETRIC VALUES	
ALPHA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

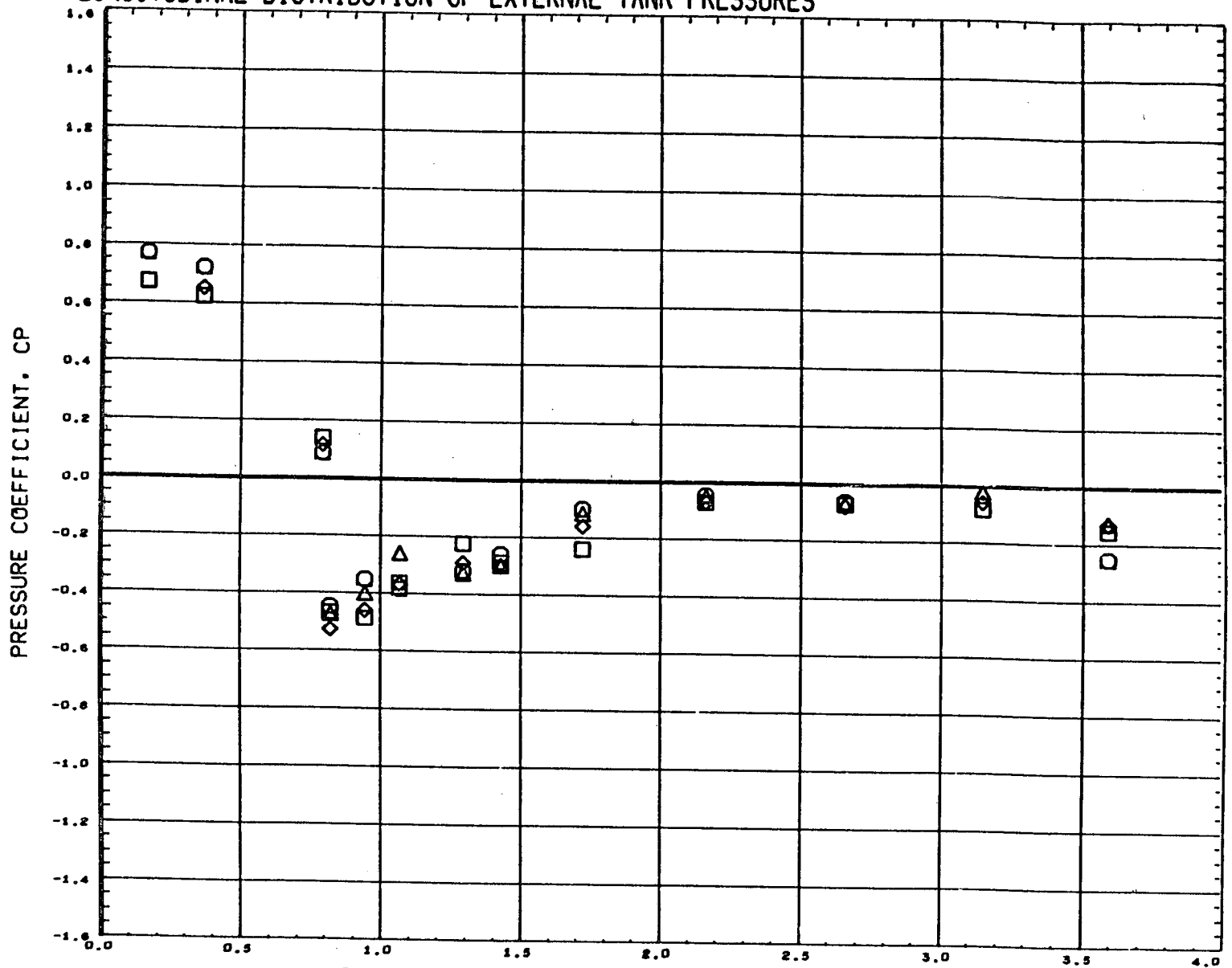
PAGE 244

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI BETA MACH
 ○ 126,000 - 4,000 1,200
 △ 144,000
 ◇ 162,000
 □ 180,000

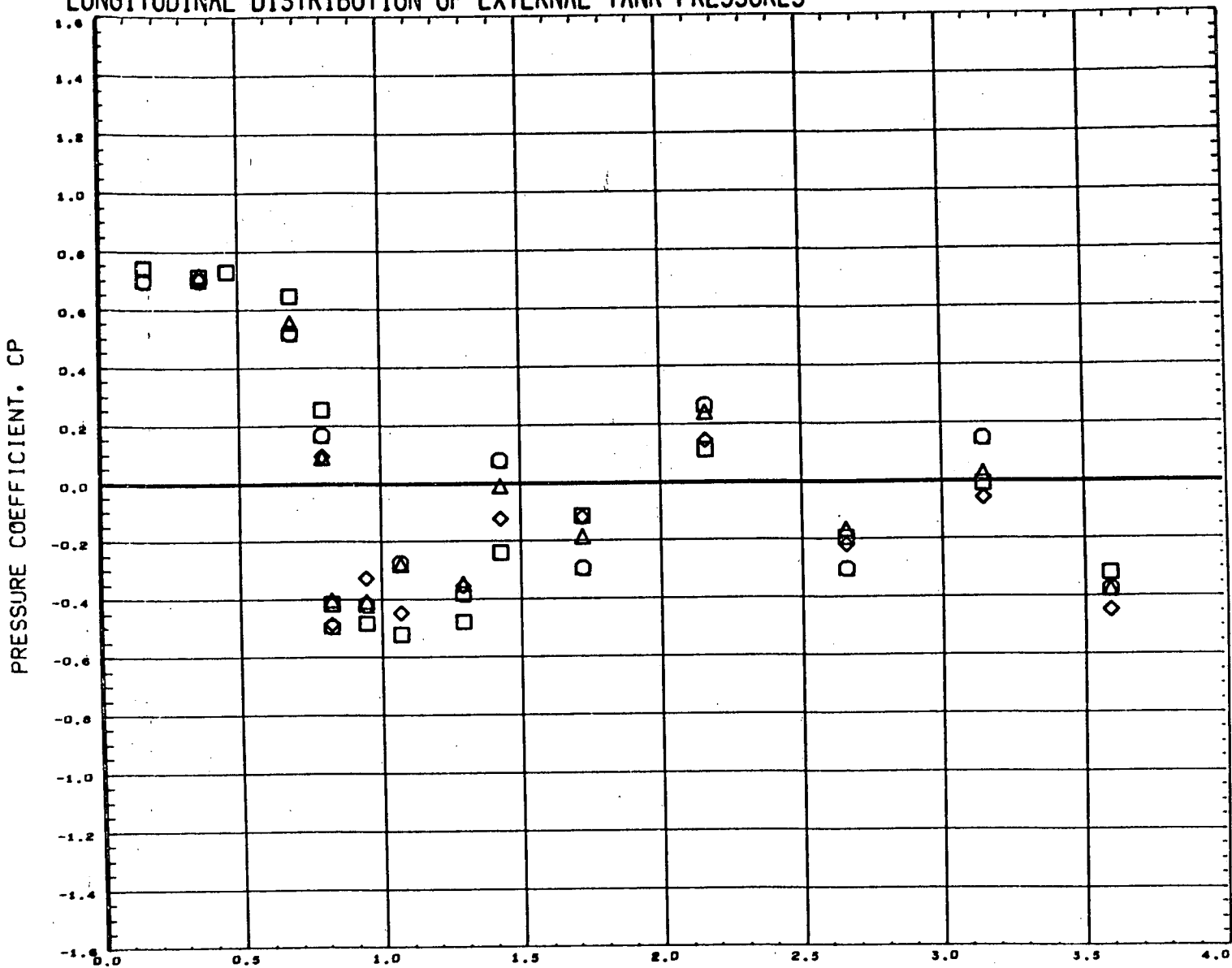
PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1,500
 SRBCAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 246

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○ 0.000
 △ 15.000
 ◇ 30.000
 □ 45.000

BETA 0.000
 MACH 1.200

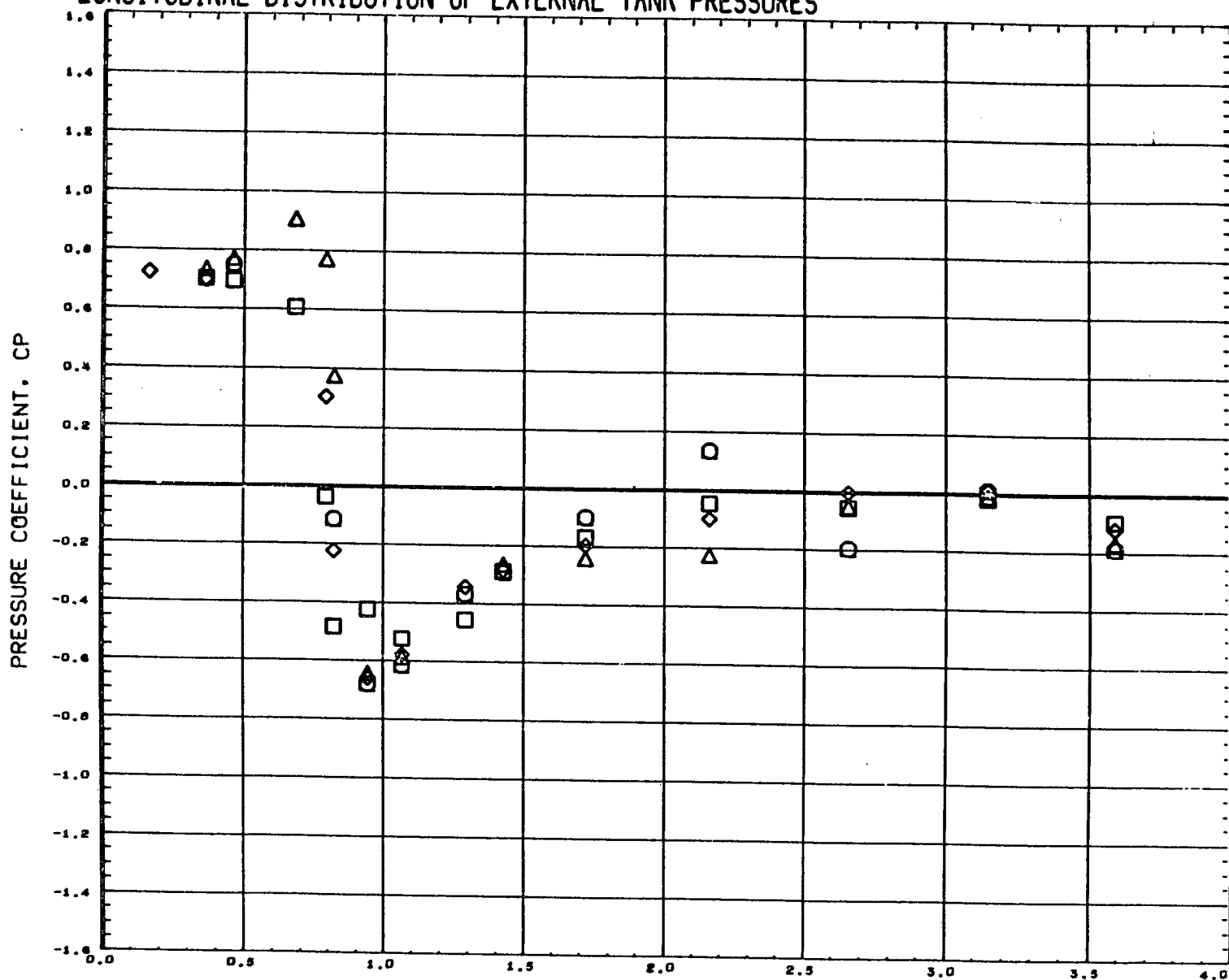
PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 247

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	60.000	0.000	1.200
△	75.000		
◇	90.000		
□	100.000		

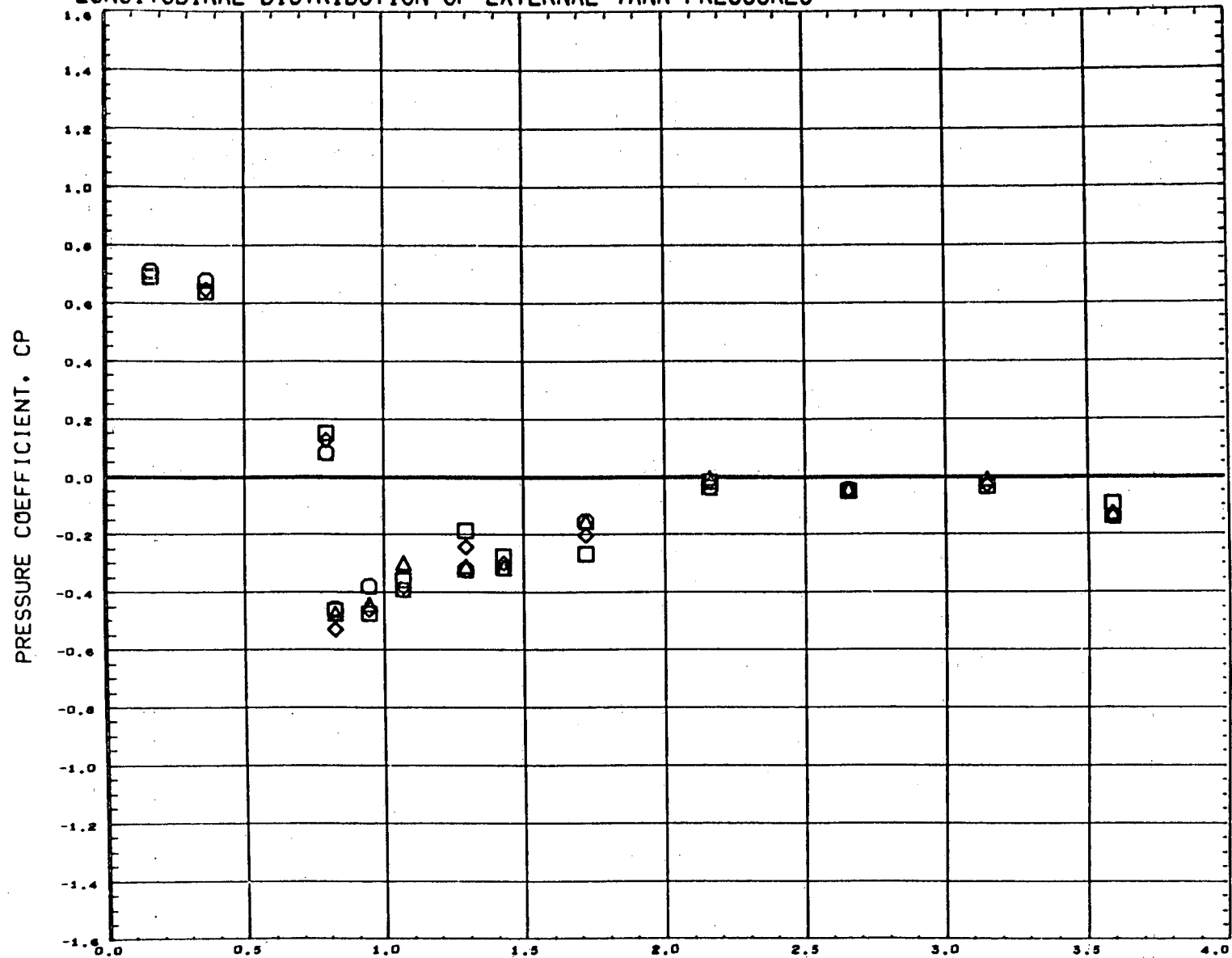
PARAMETRIC VALUES	
ALPHA	0.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 248

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL



PHI

BETA

MACH

126,000
144,000
162,000
180,000

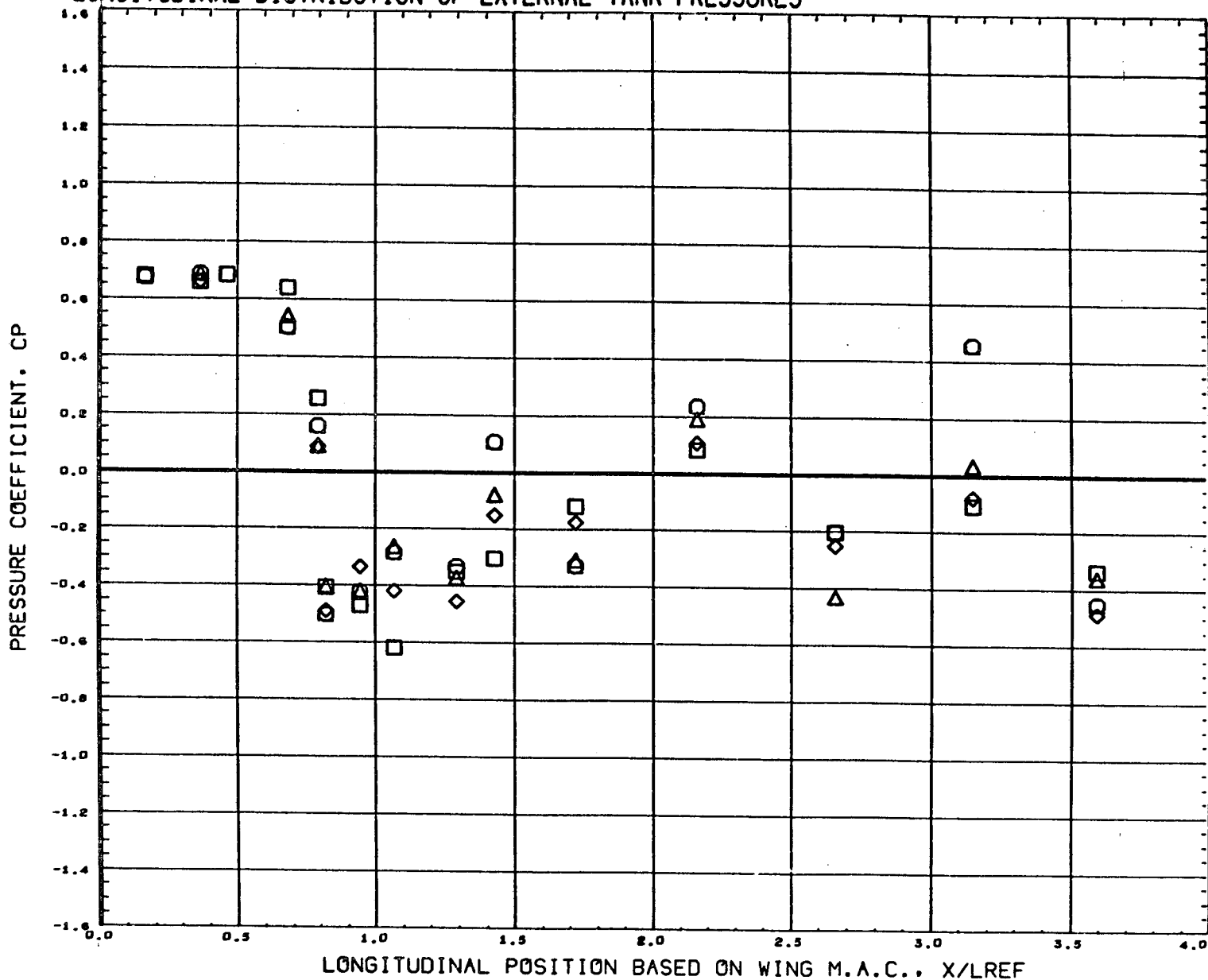
0,000 1,200

PARAMETRIC VALUES

ALPHA 0,000 ORBINC - 1,500
SRBGAP 0,025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL
 ○
 △
 ◇
 □

PHI	BETA	MACH
0.000	4.000	1.200
15.000		
30.000		
45.000		

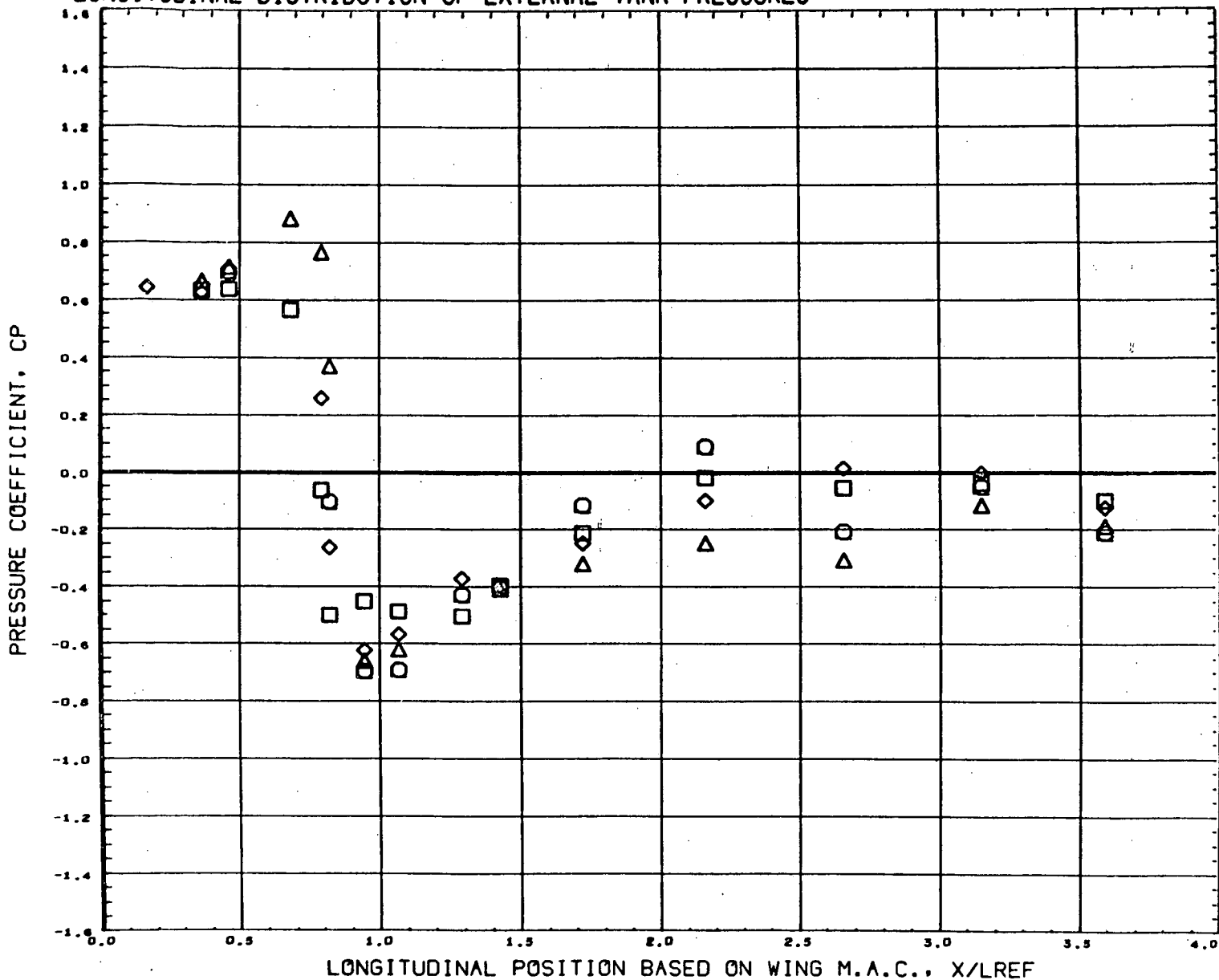
PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBCAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 250

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



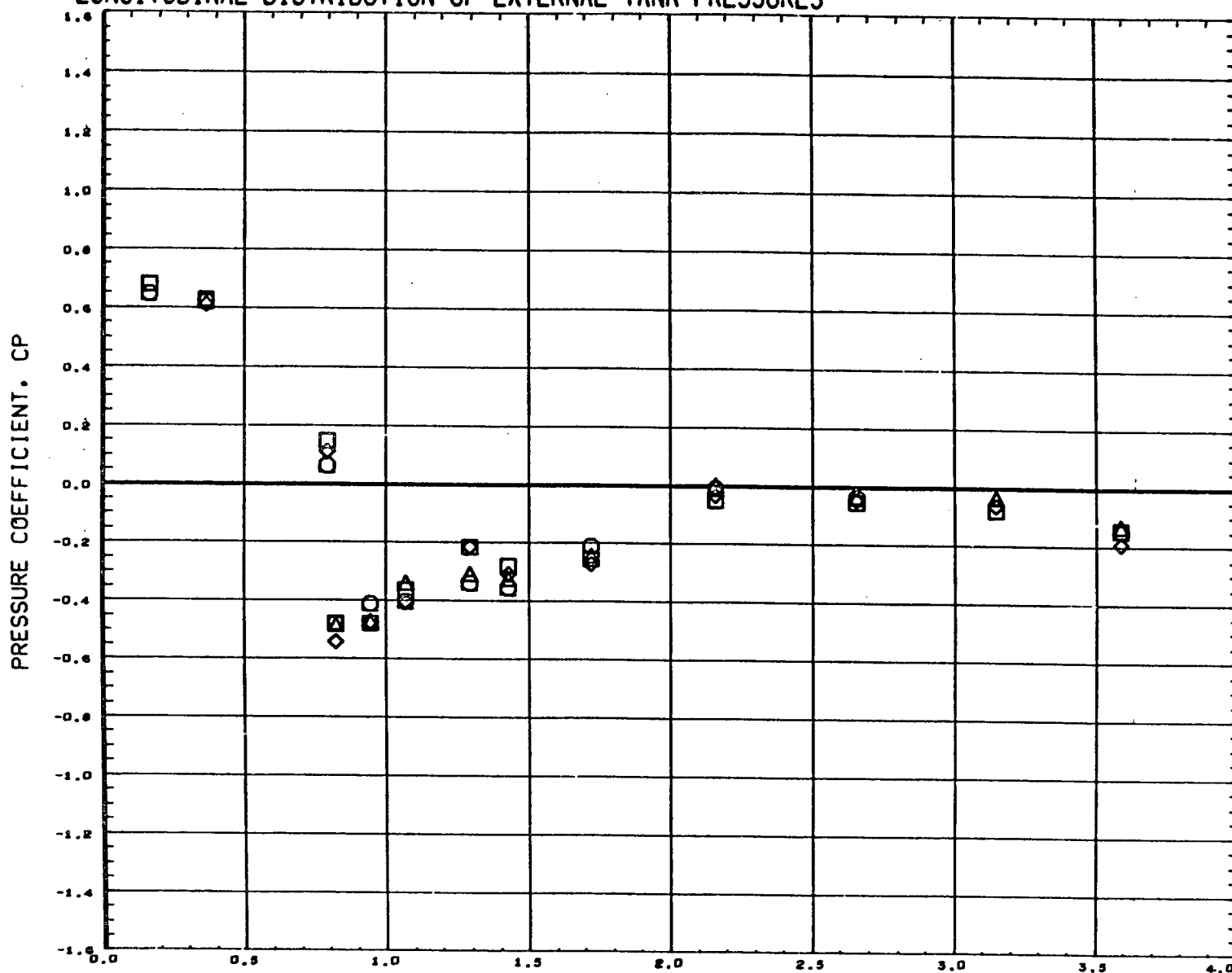
SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
◇	60.000	4.000	1.200	ALPHA 0.000 ORBINC - 1.500
◇	75.000			SRBGAP 0.025
□	100.000			

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 251

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



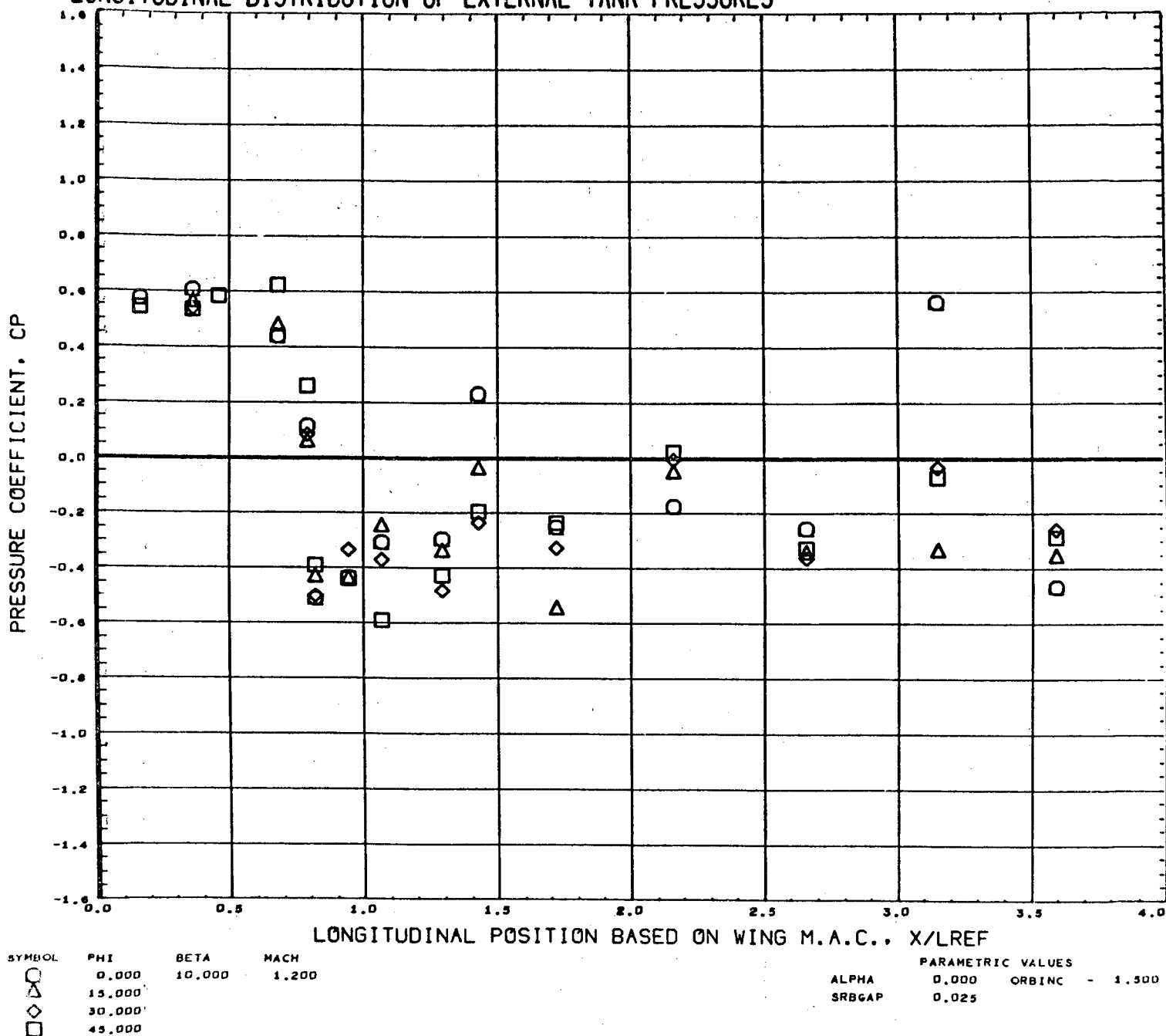
SYMBOL	PHI	BETA	MACH	ALPHA	PARAMETRIC VALUES
○	126.000	4.000	1.200	0.000	ORBINC - 1.500
△	144.000			SRBGAP	0.025
◇	162.000				
□	160.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 252

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

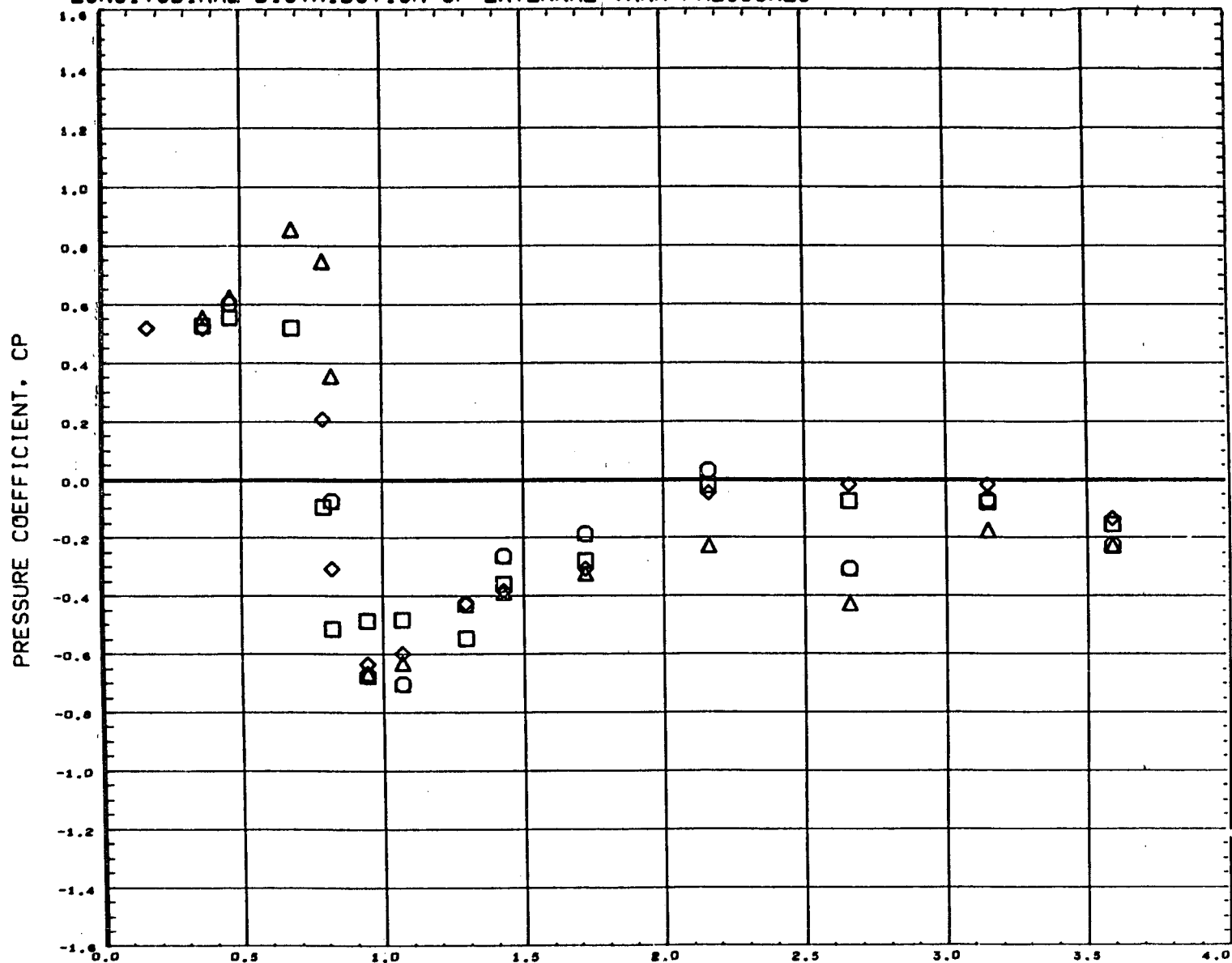


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. 11S101 (R703TK)

PAGE 253

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	60.000	10.000	1.200
△	75.000		
◇	90.000		
□	100.000		

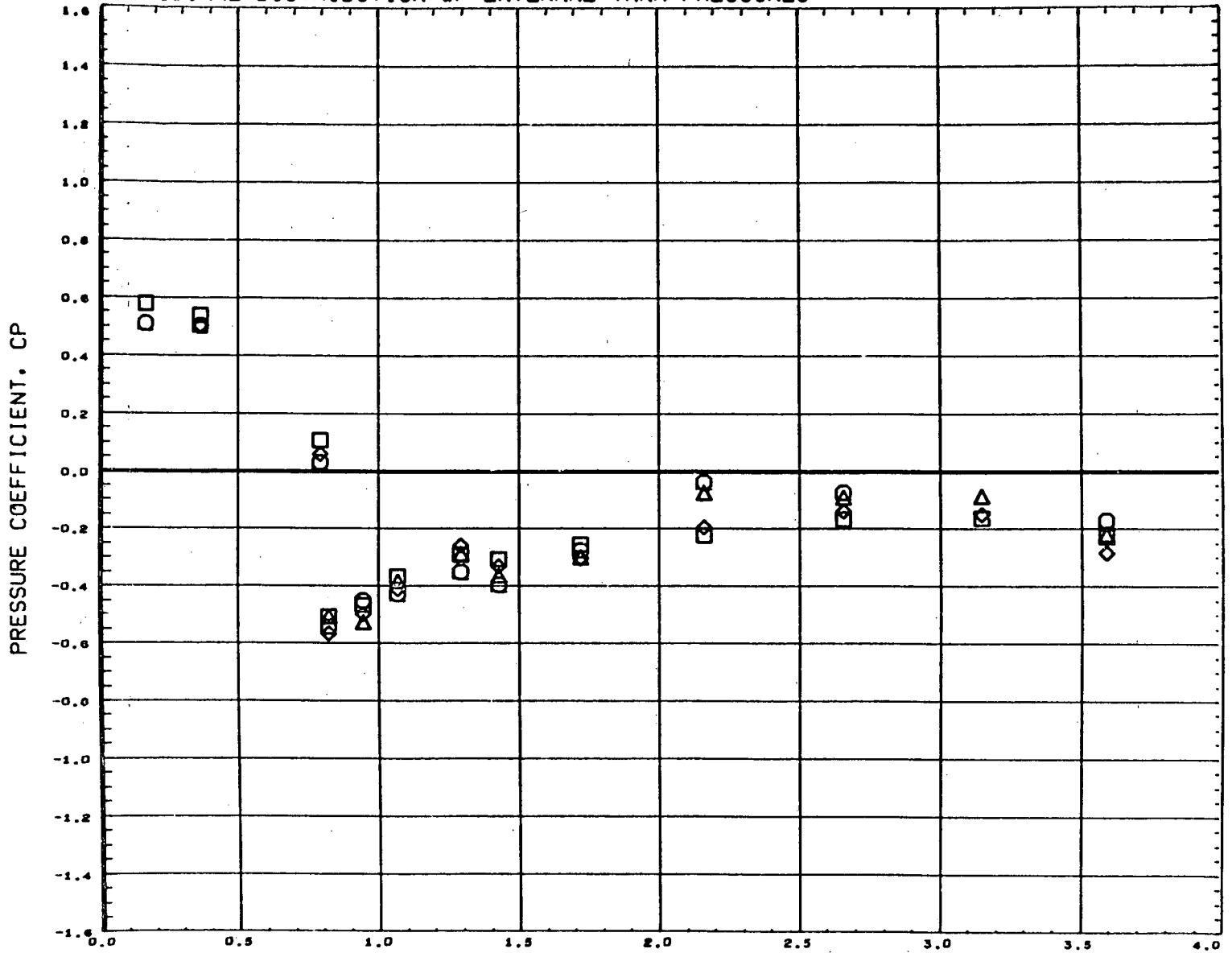
PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBCAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 254

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH
○	126,000	10,000	1.200
△	144,000		
◇	162,000		
□	180,000		

PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

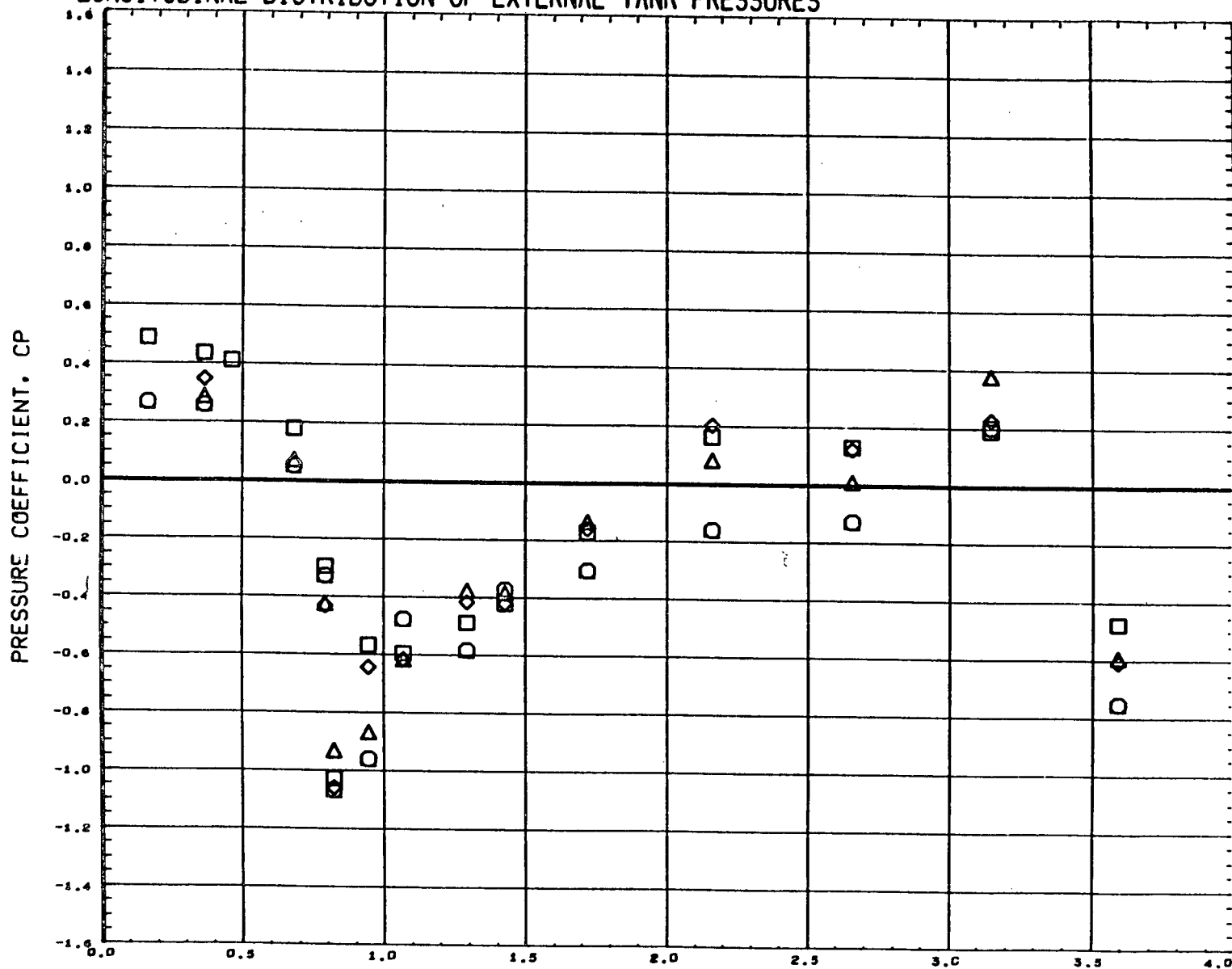
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703TK)

PAGE 255

oil

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	- 10.000	0.950
△	15.000		
◇	30.000		
□	45.000		

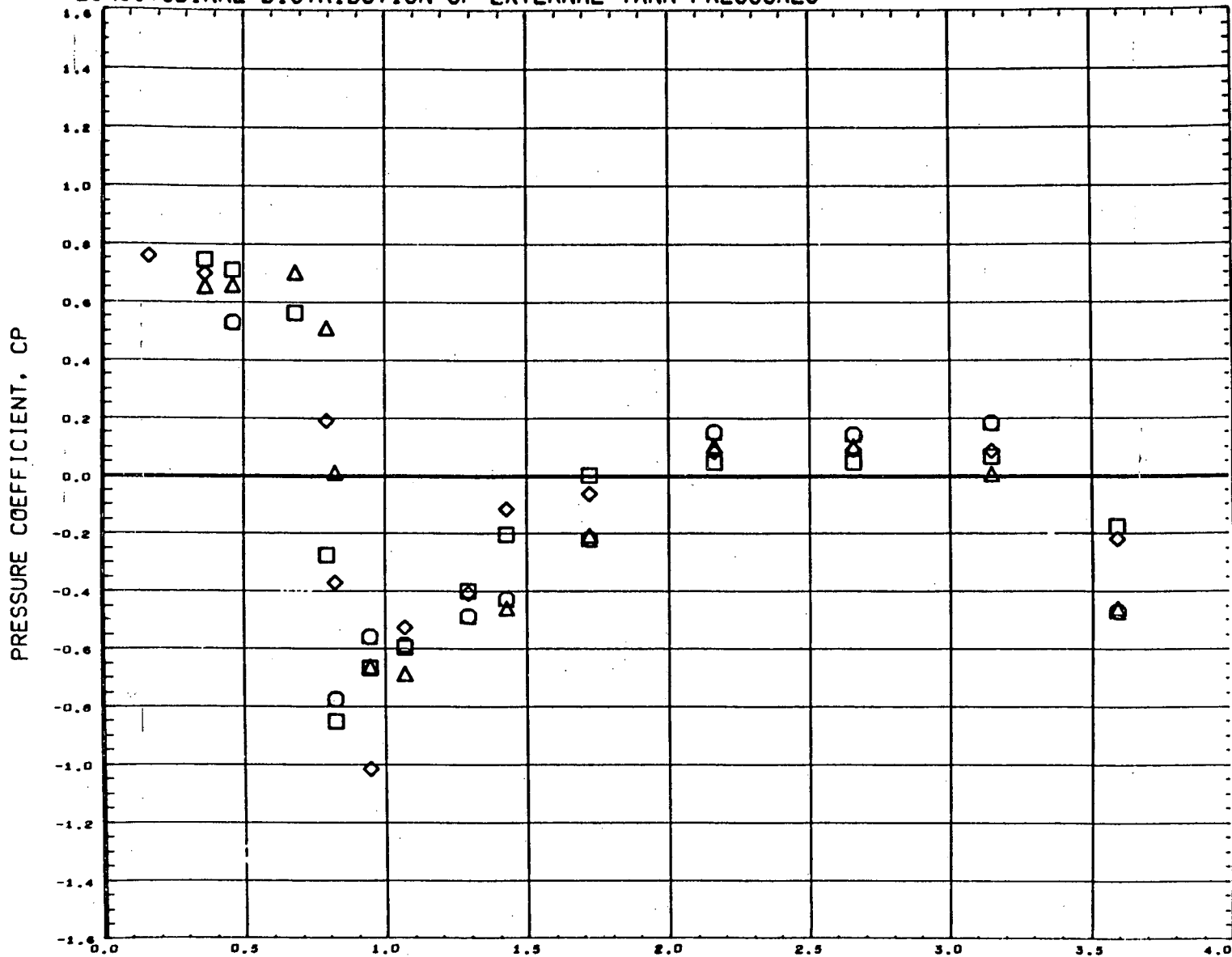
PARAMETRIC VALUES	
ALPHA	6.000 ORBINC + 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 256

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



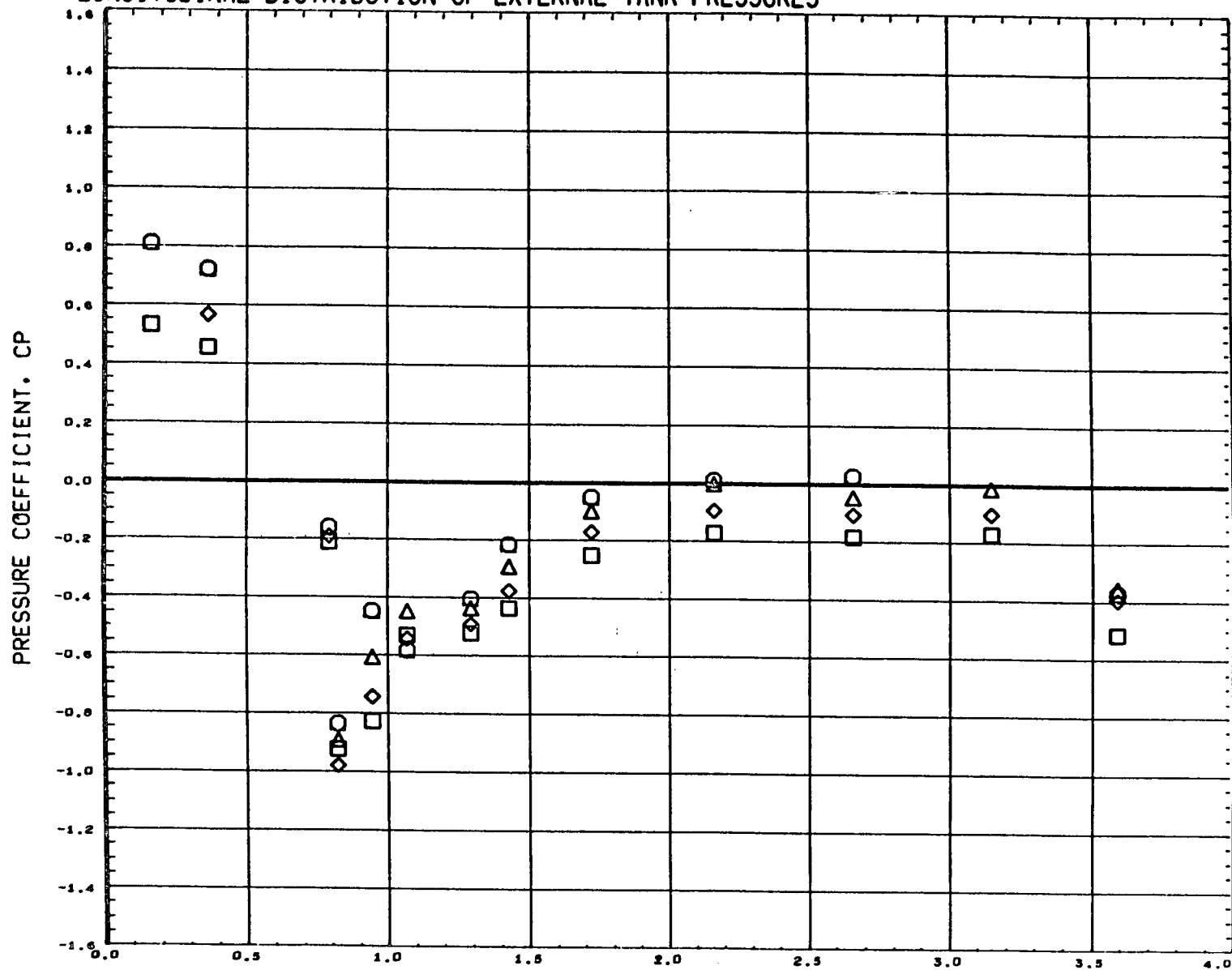
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	60.000	- 10.000	0.950
△	75.000		
◇	90.000		
□	106.000		

PARAMETRIC VALUES	
ALPHA	6.000
SRBGAP	0.025
ORBINC	- 1.500

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	126.000	- 10.000	0.950
△	144.000		
◇	162.000		
□	180.000		

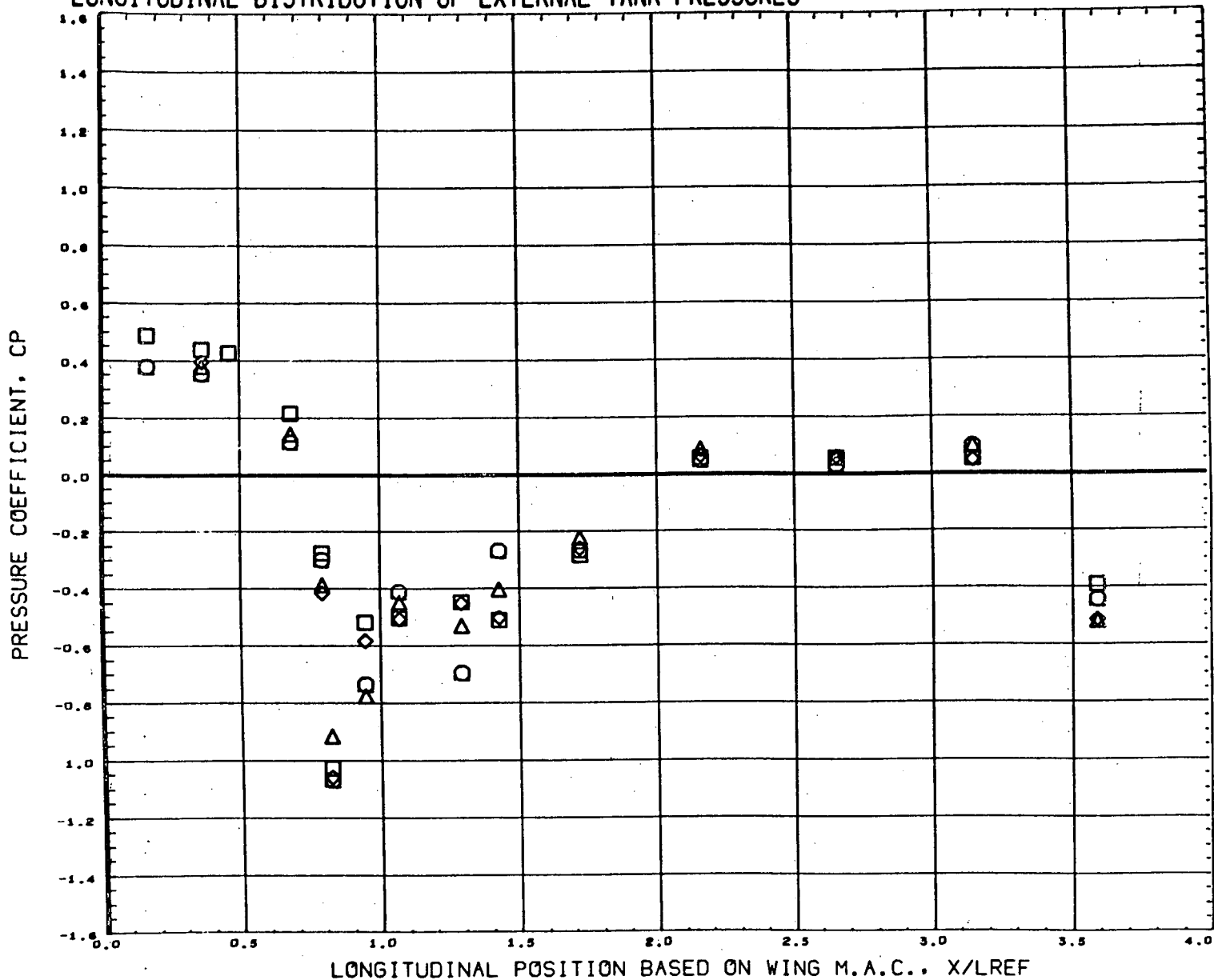
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SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 258

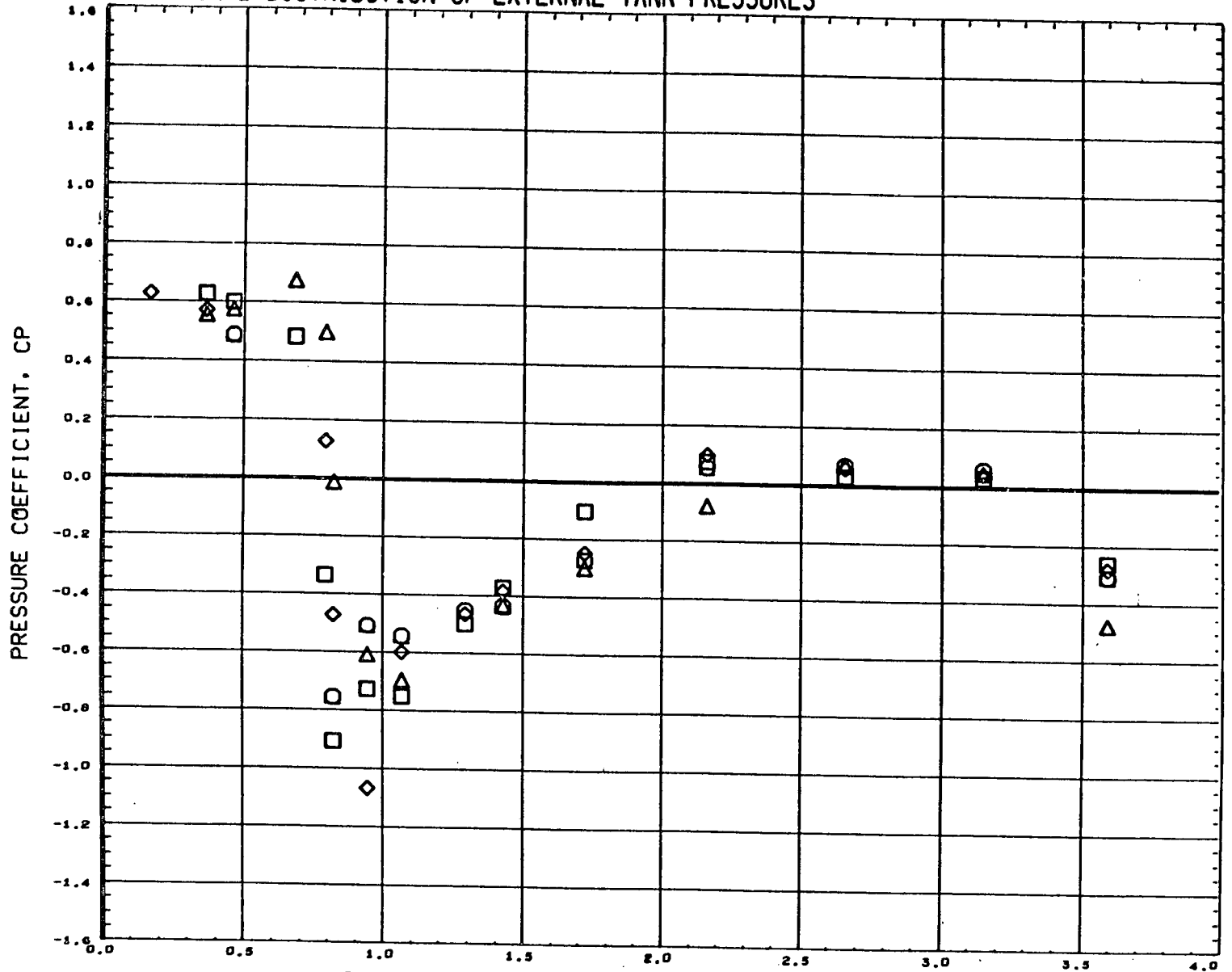
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	0.000	- 4.000	0.950	ALPHA 6.000 ORBINC - 1.500
△	15.000			SRBCAP 0.025
◇	30.000			
□	45.000			

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



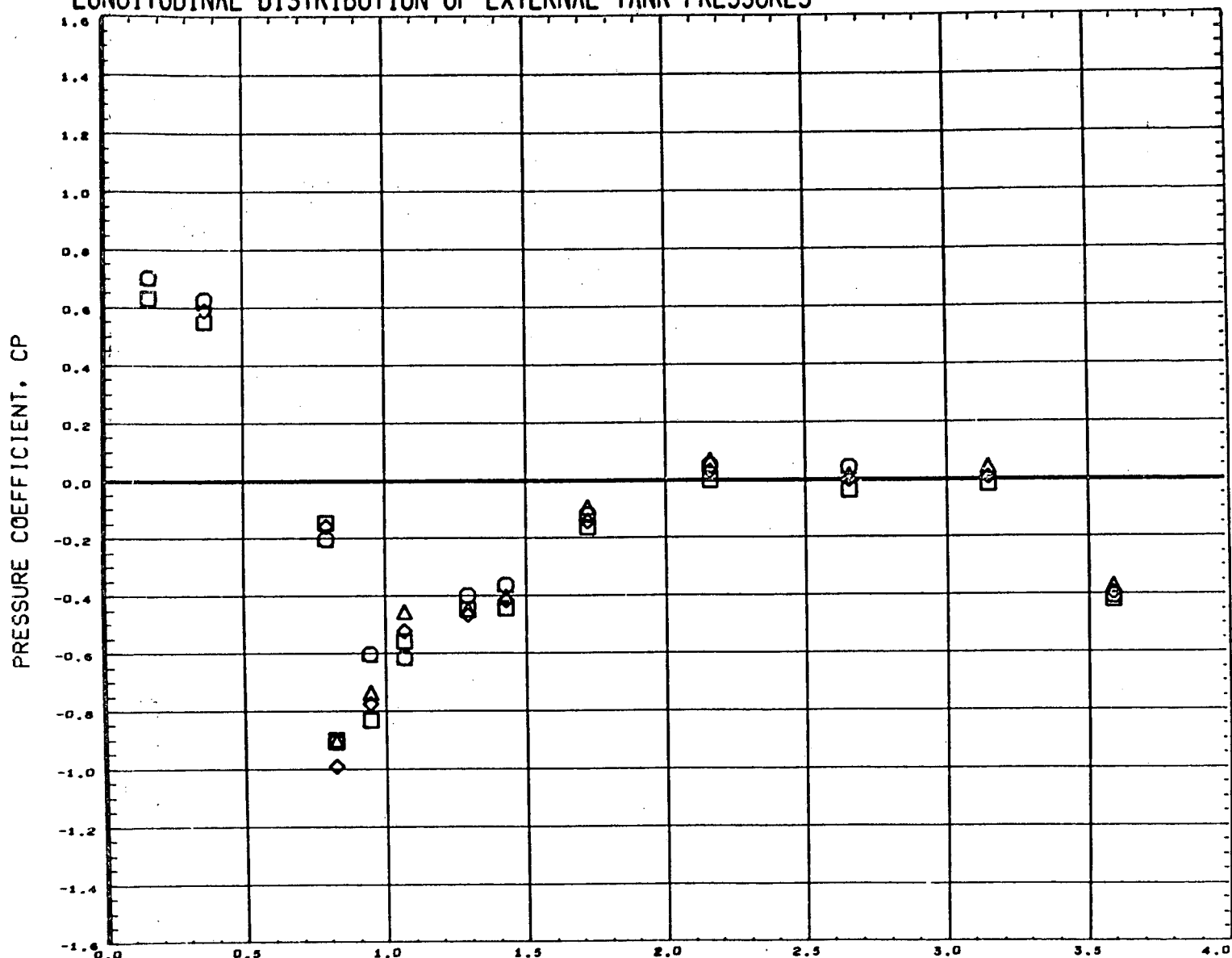
SYMBOL
 ○ 60.000
 △ 75.000
 ◇ 90.000
 □ 106.000

REFERENCE FILE

LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

BETA 4.000
 MACH 0.950
 ALPHA 6.000
 SRBGAP 0.025
 ORBINC - 1.500

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

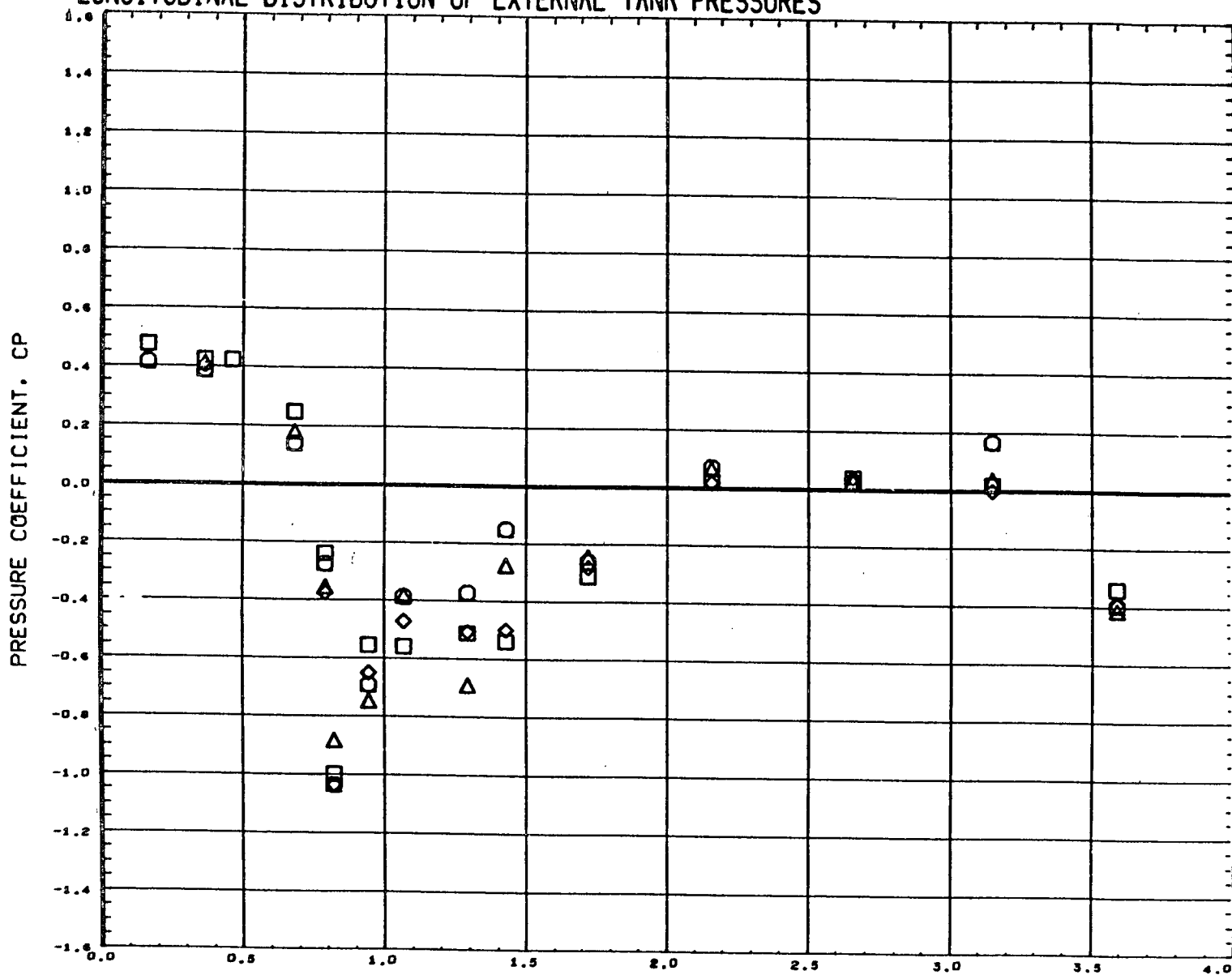


SYMBOL	PARAMETRIC VALUES		
	PHI	BETA	MACH
○	126,000	4.000	0.950
△	144,000		
◇	162,000		
□	180,000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC = 1.500
SRBCAP	0.025	

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	0.000	0.950
△	15.000		
◇	30.000		
□	45.000		

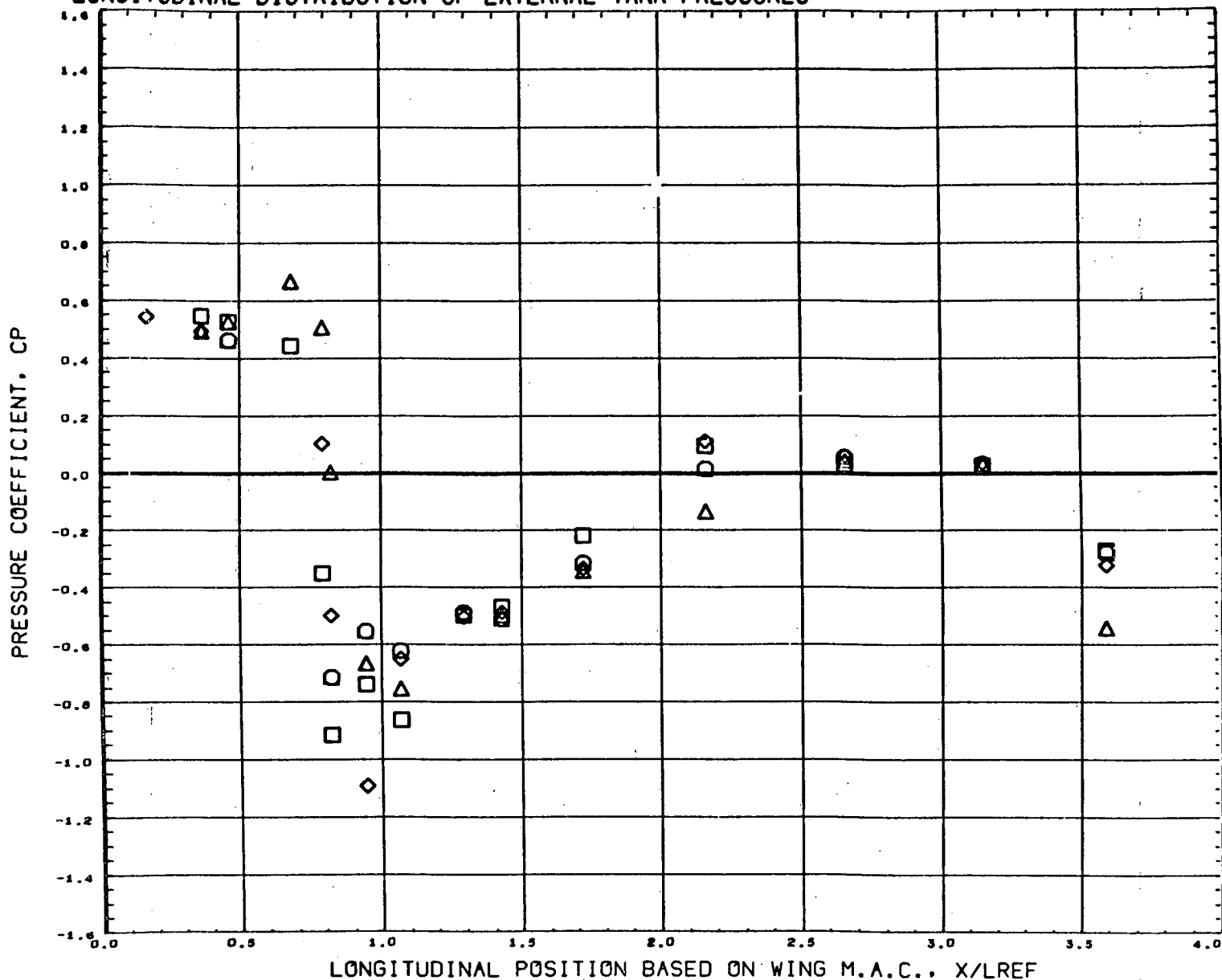
PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBGAP	0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 262

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



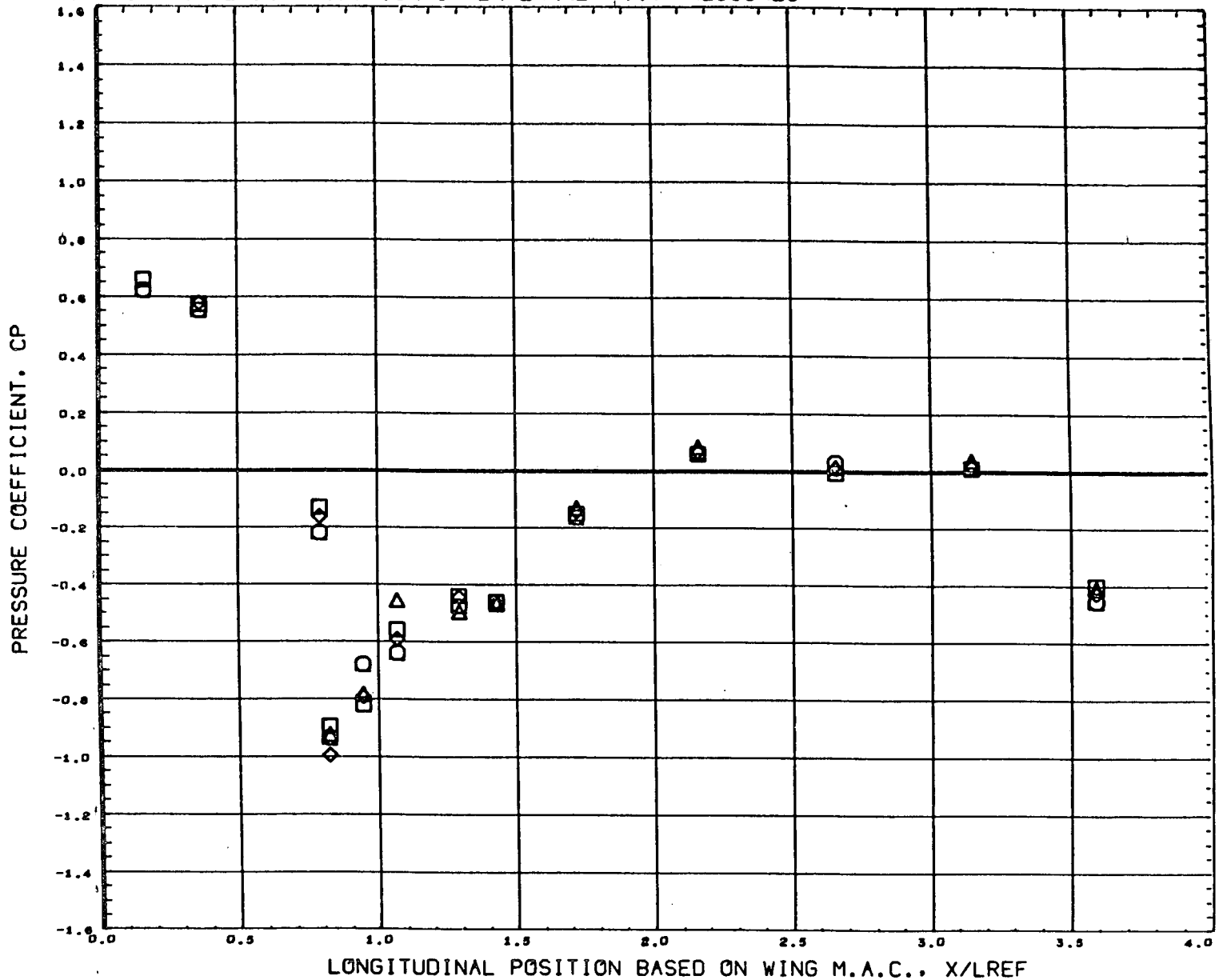
SYMBOL	PHI	BETA	MACH	ALPHA	SRBCAP	PARAMETRIC VALUES
○	60.000	0.000	0.950	6.000	0.025	ORBINC - 1.500
△	75.000					
◇	90.000					
□	108.000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 263

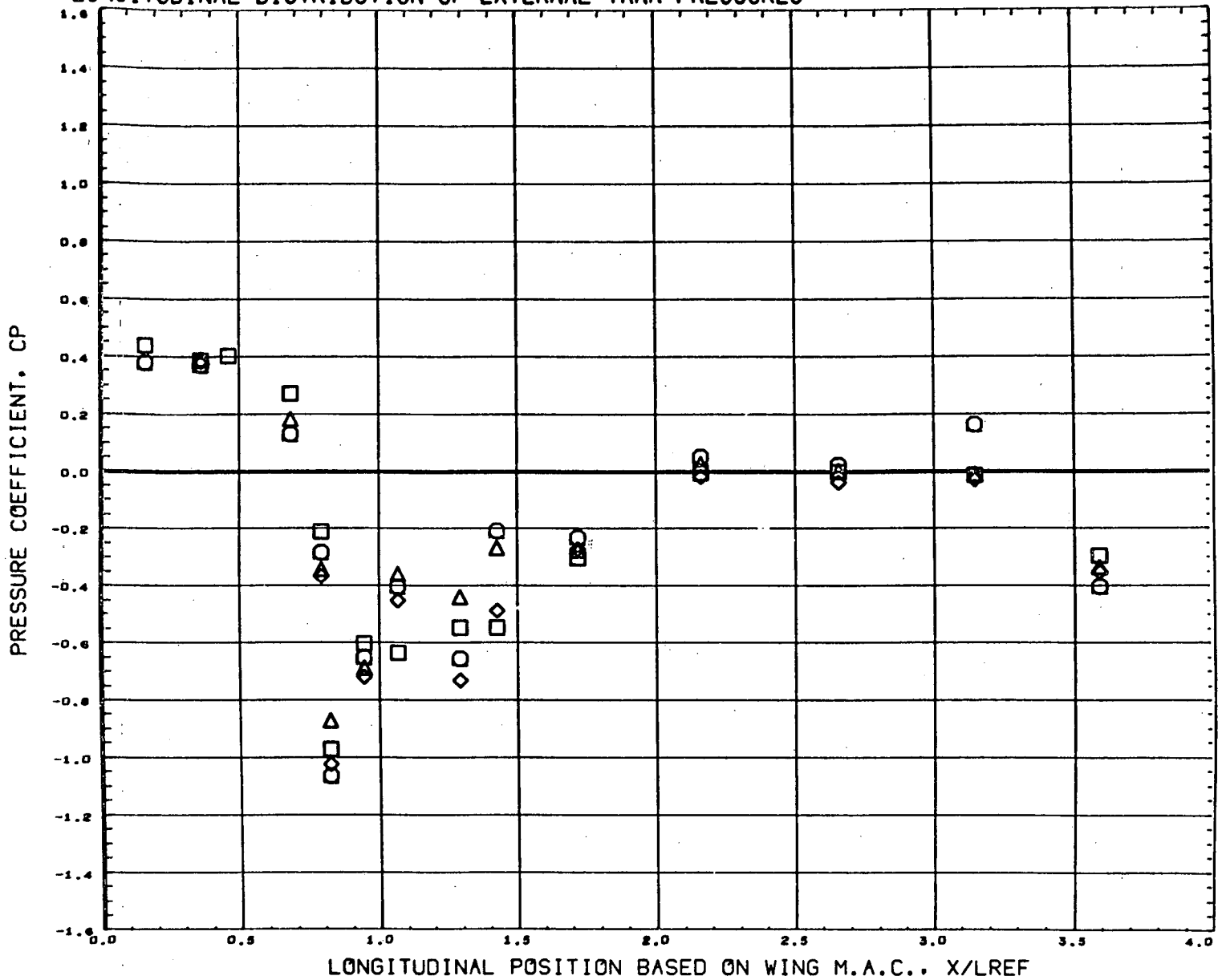
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	126,000	0.000	0.950	ALPHA	6.000
△	144,000			SRBCAP	0.025
◇	162,000				
□	180,000				

REFERENCE FILE

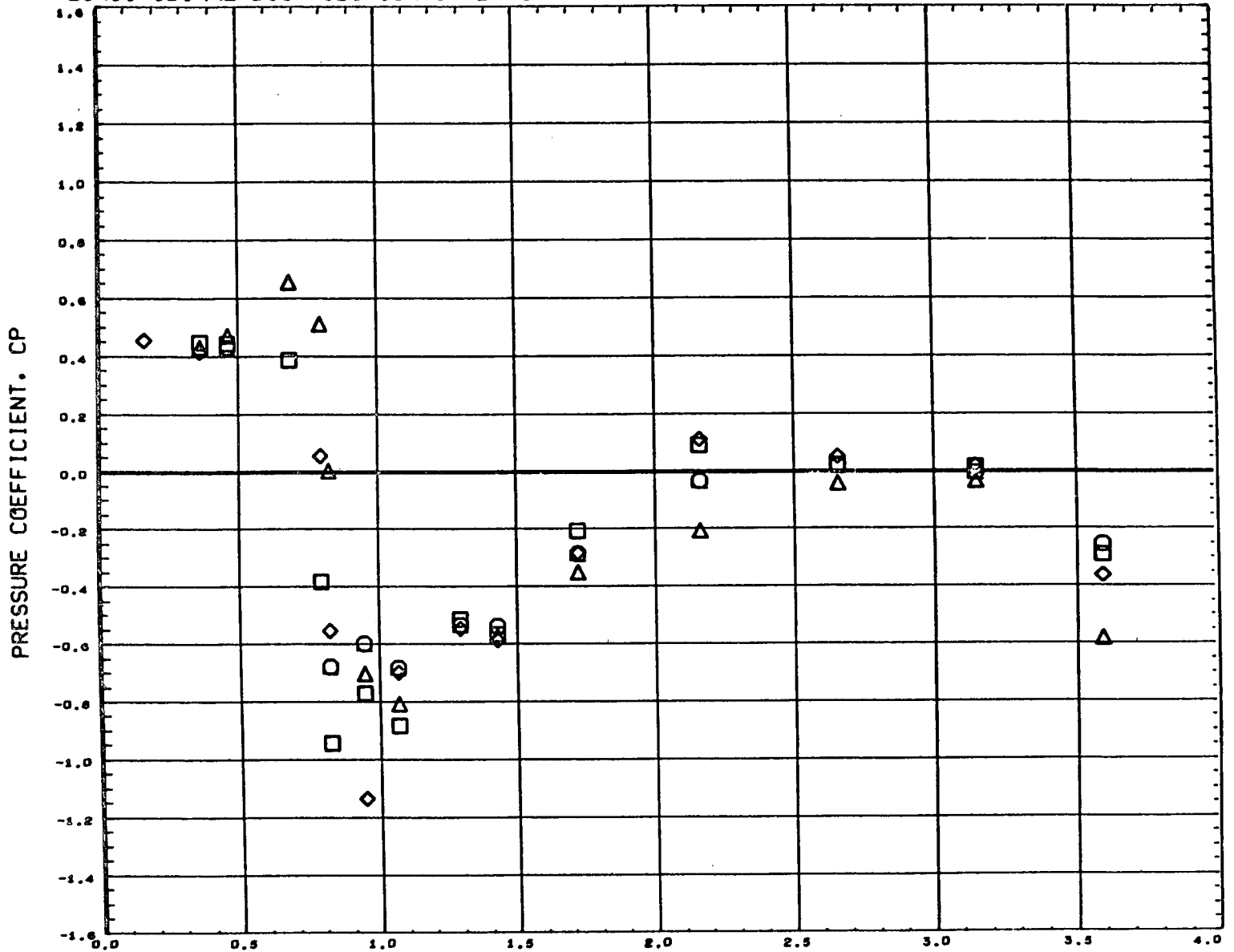
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	0.950	ALPHA	6.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

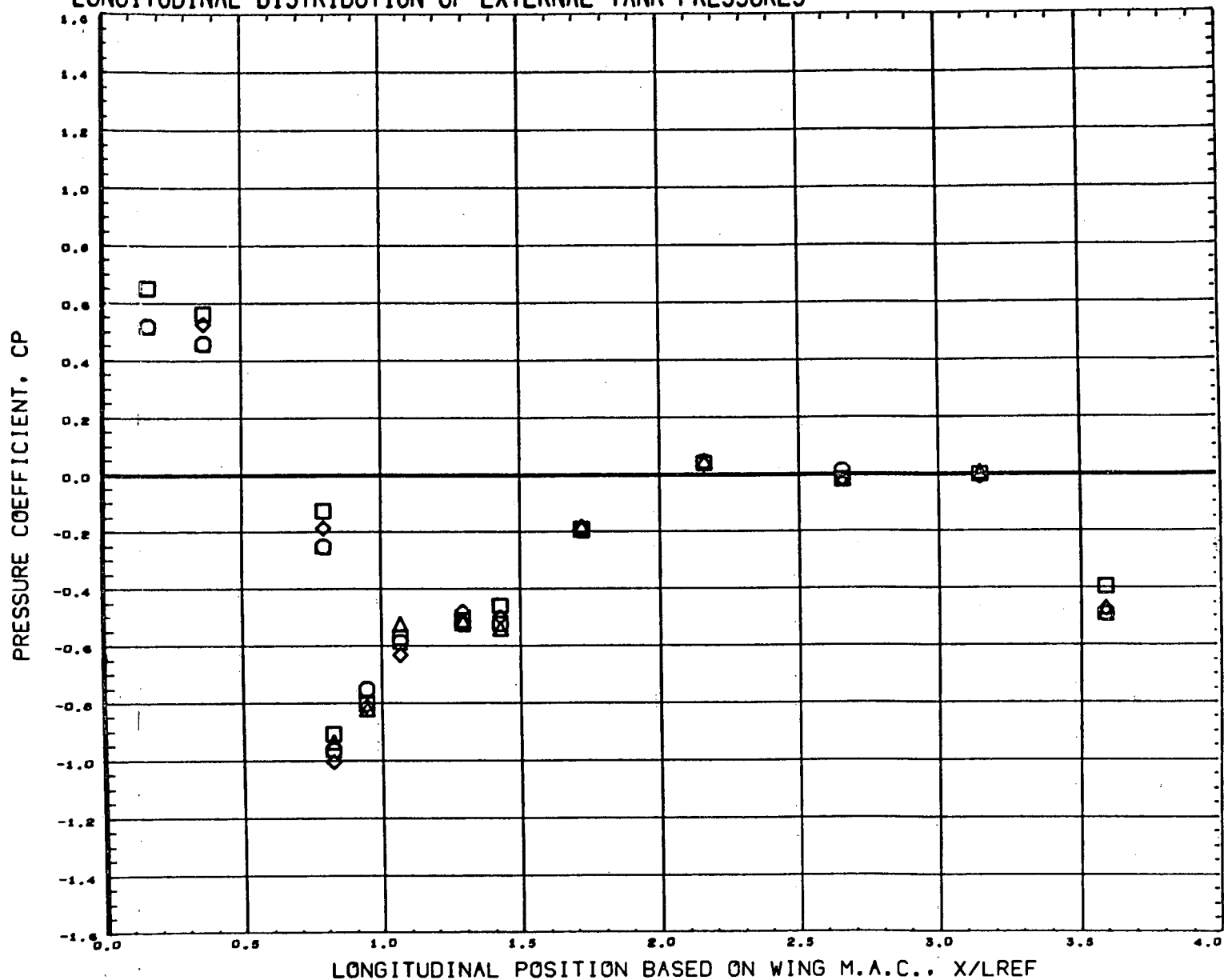


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	ALPHA	PARAMETRIC VALUES	
○	60.000	4.000	0.950	6.000	SRBGAP	ORBINC - 1.500
△	75.000			0.025		
◇	90.000					
□	100.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL PHI BETA MACH
○ 126.000 4.000 0.950
△ 144.000
◇ 162.000
□ 180.000

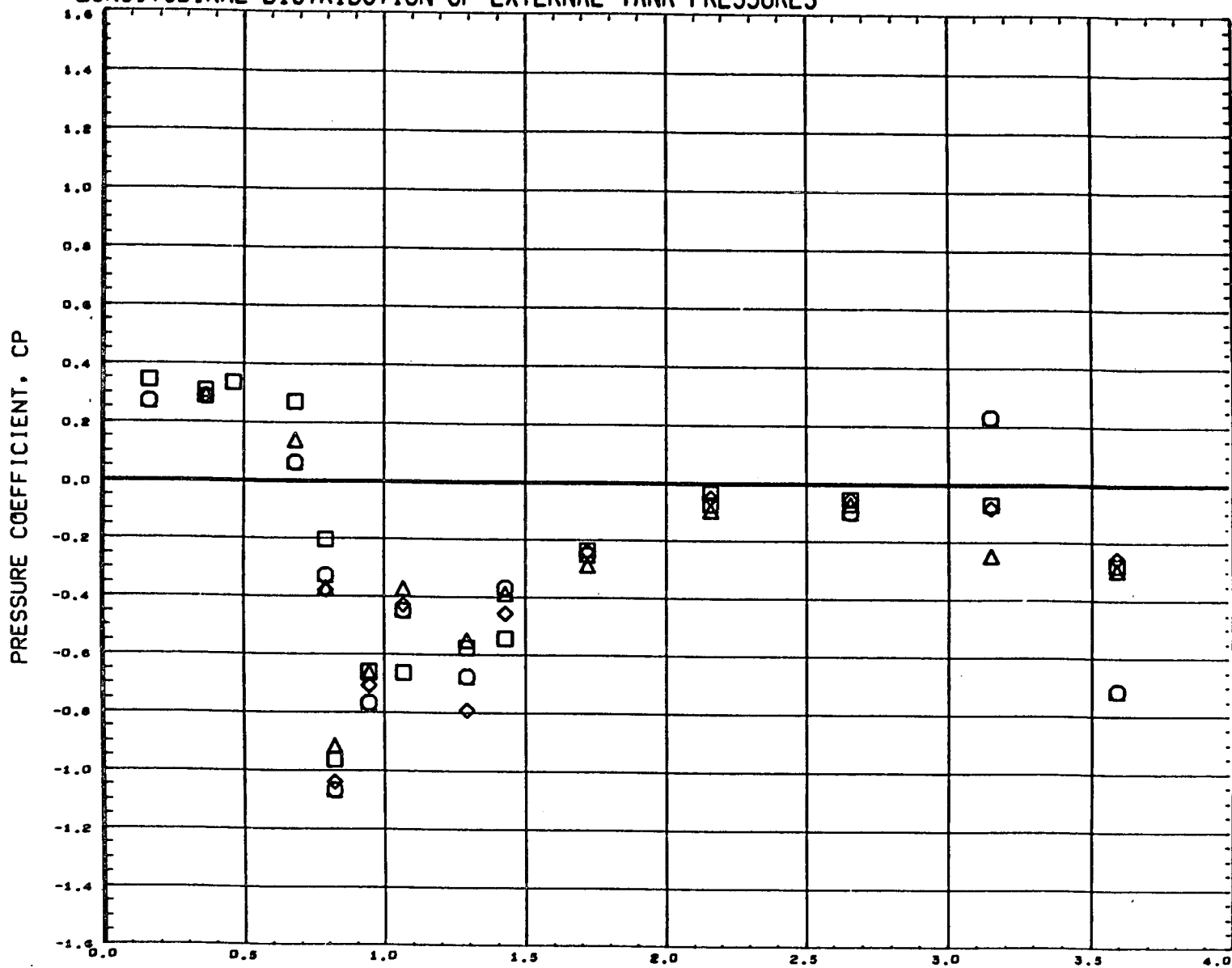
PARAMETRIC VALUES
ALPHA 6.000 ORBINC - 1.500
SRBCAP 0.025

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 267

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	0.000	10.000	0.950	ALPHA 6.000 ORBINC - 1.500
△	15.000			SRBGAP 0.025
◇	30.000			
□	45.000			

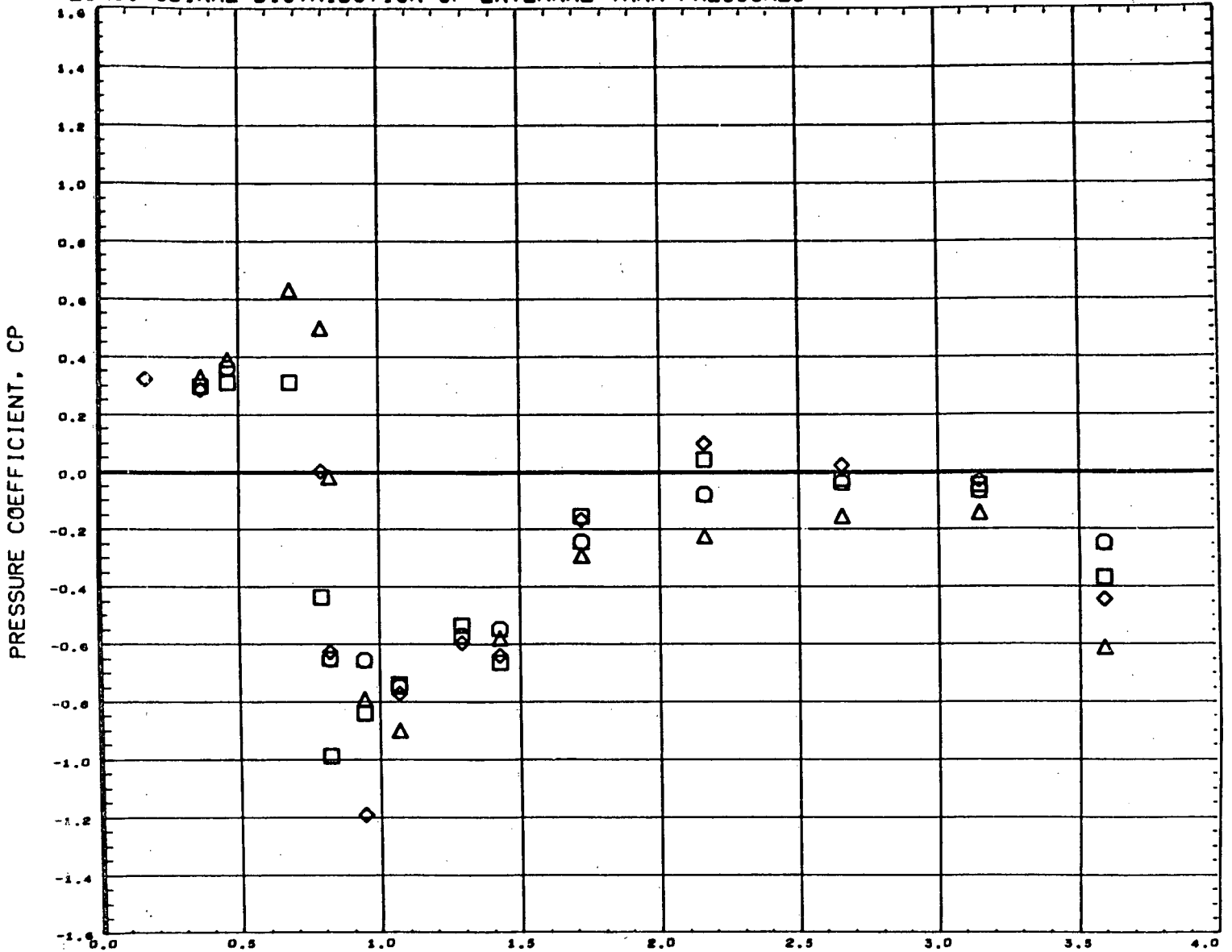
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 268

B

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL
 ○
 △
 ◇
 □

PHI
 60,000
 75,000
 90,000
 100,000

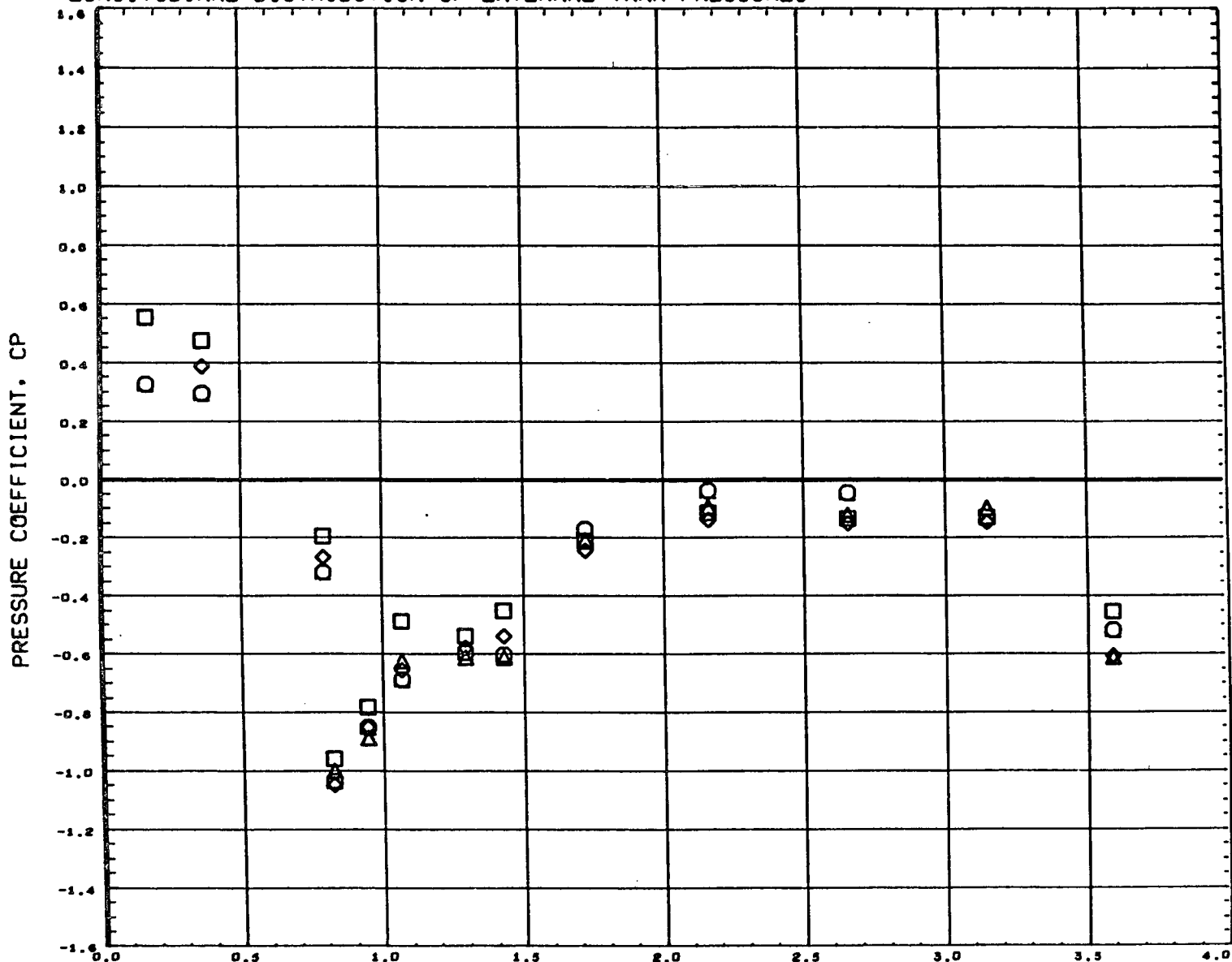
BETA
 10,000

MACH
 0.950

PARAMETRIC VALUES
 ALPHA 6.000 CR&INC - 1.500
 SR&CAP 0.025

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



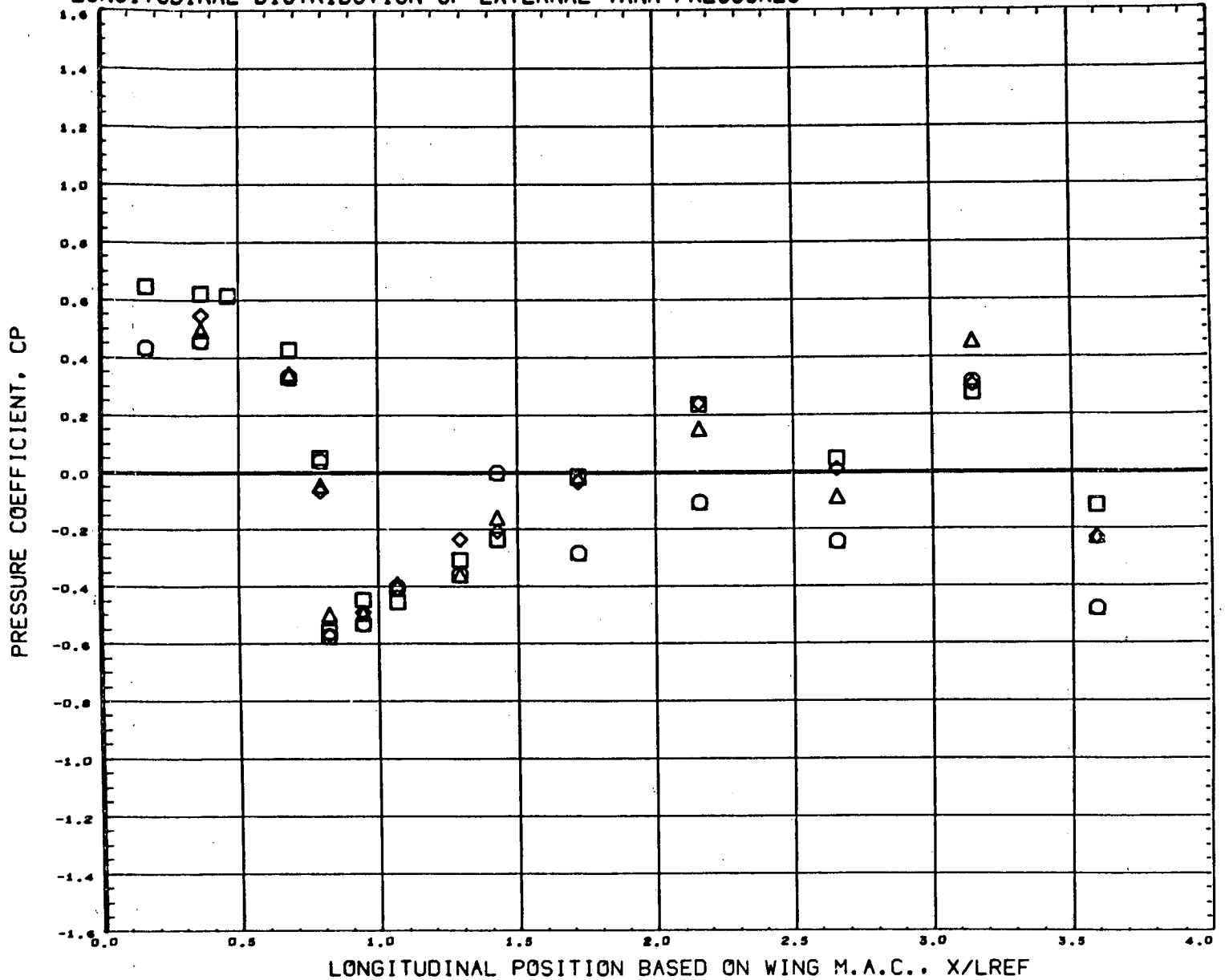
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	126.000	10.000	0.950
△	144.000		
◇	162.000		
□	180.000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

REFERENCE FILE

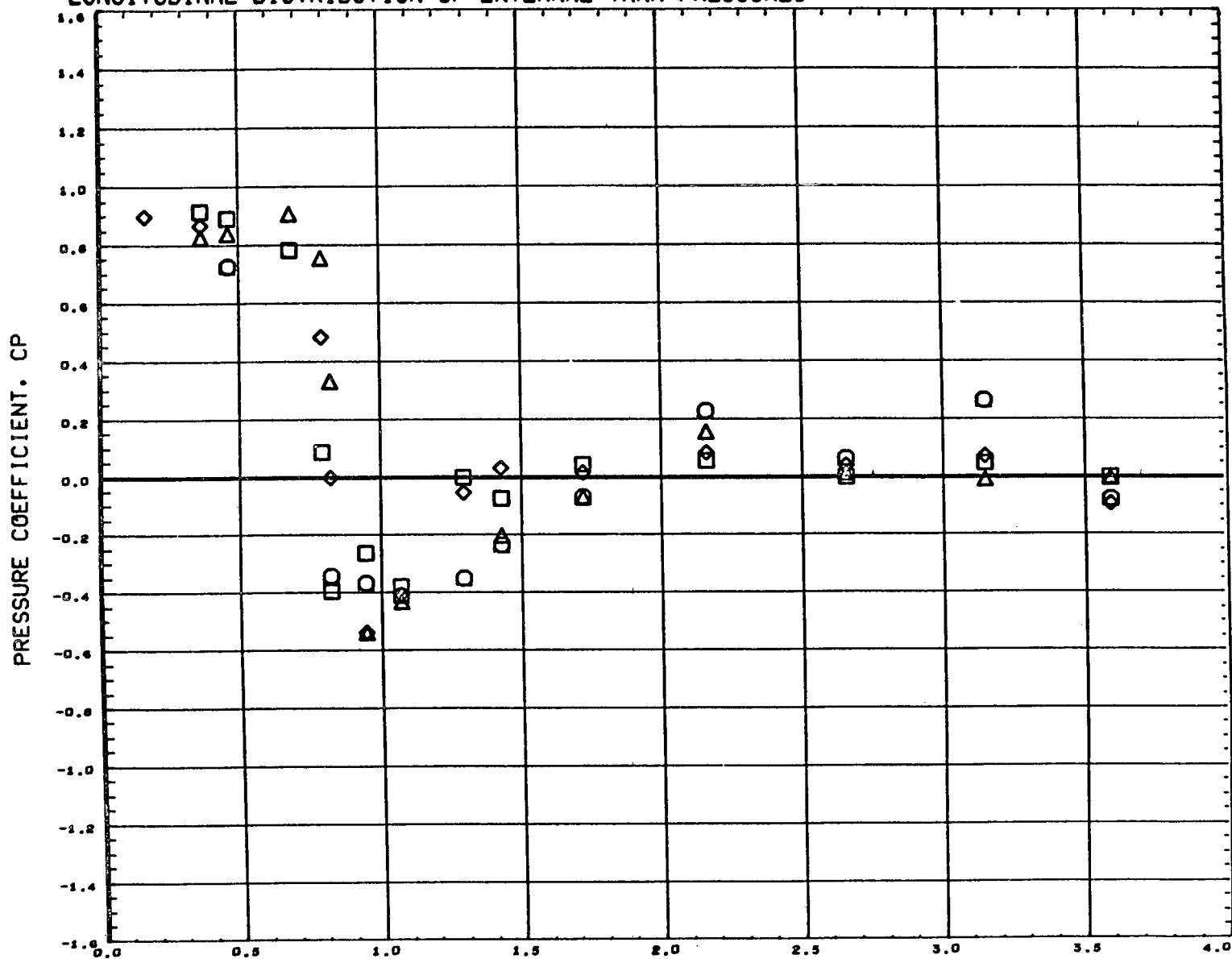
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	- 10.000	1.200	ALPHA	6.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



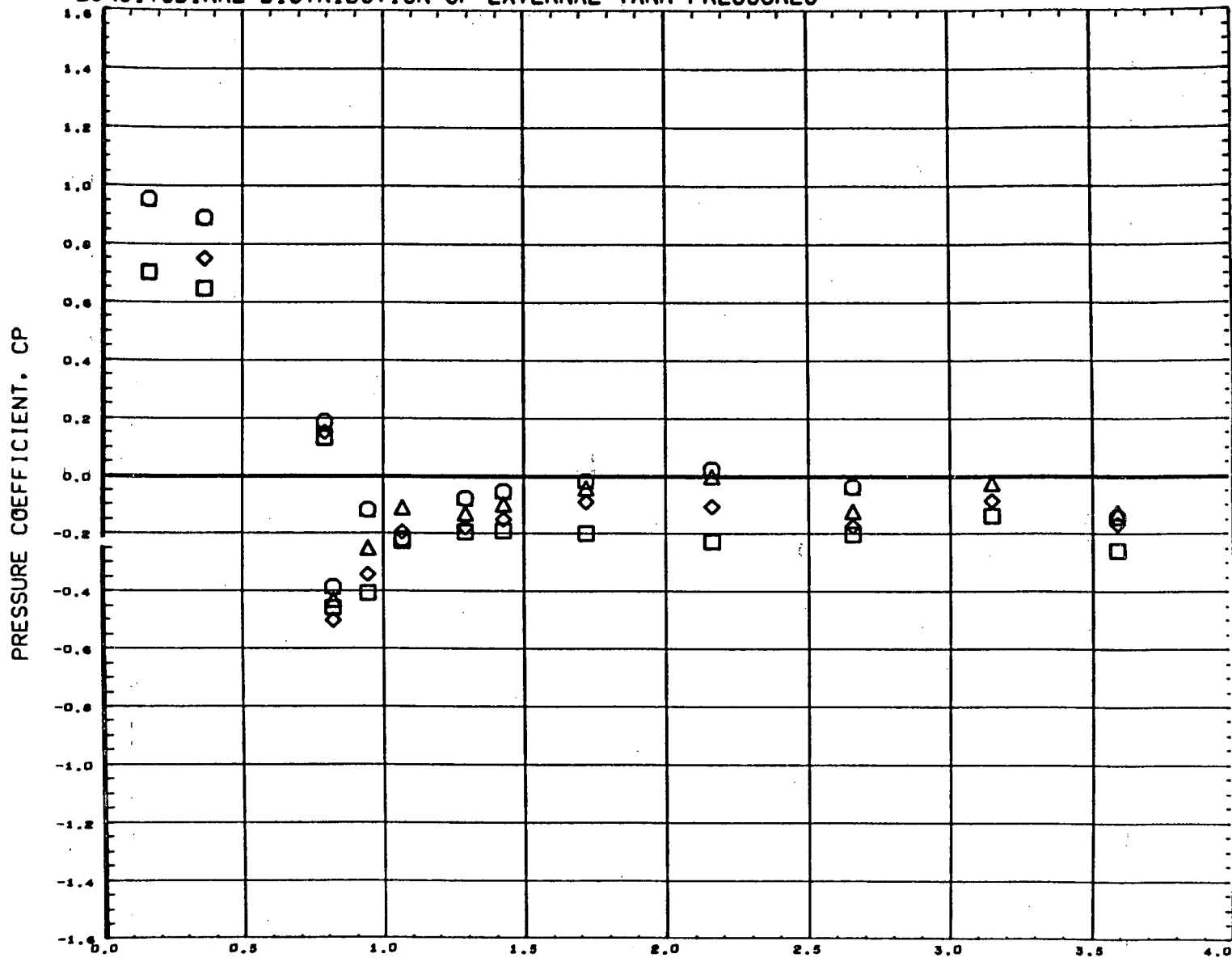
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL PHI BETA MACH
 ○ 60.000 - 10.000 1.200
 △ 75.000
 ◇ 90.000
 □ 100.000

PARAMETRIC VALUES
 ALPHA 6.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

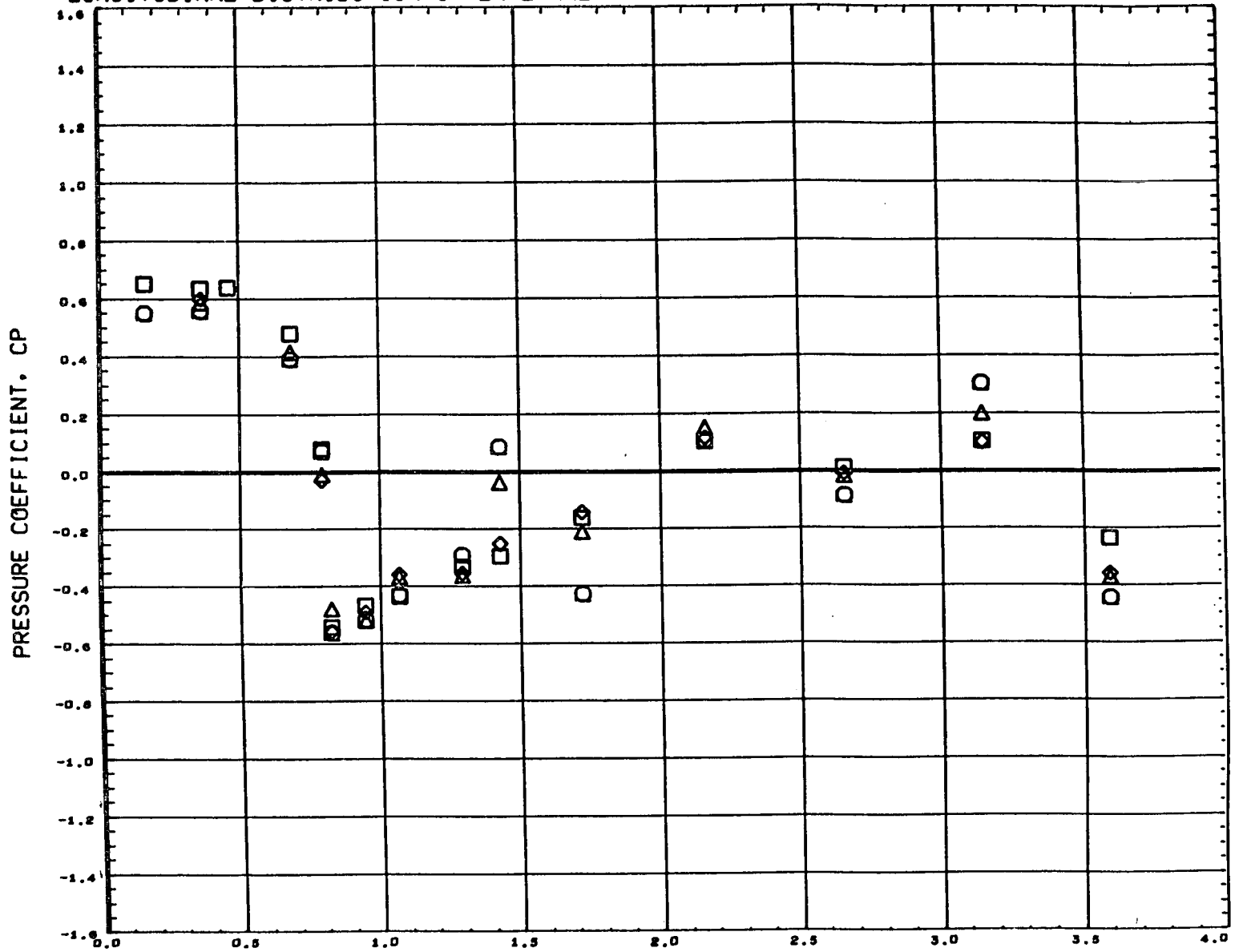
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	ALPHA	SRBGAP	PARAMETRIC VALUES	ORBNIC
○	126.000	- 10.000	1.200	6.000	0.025	-	1.500
△	144.000						
◇	162.000						
□	180.000						

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

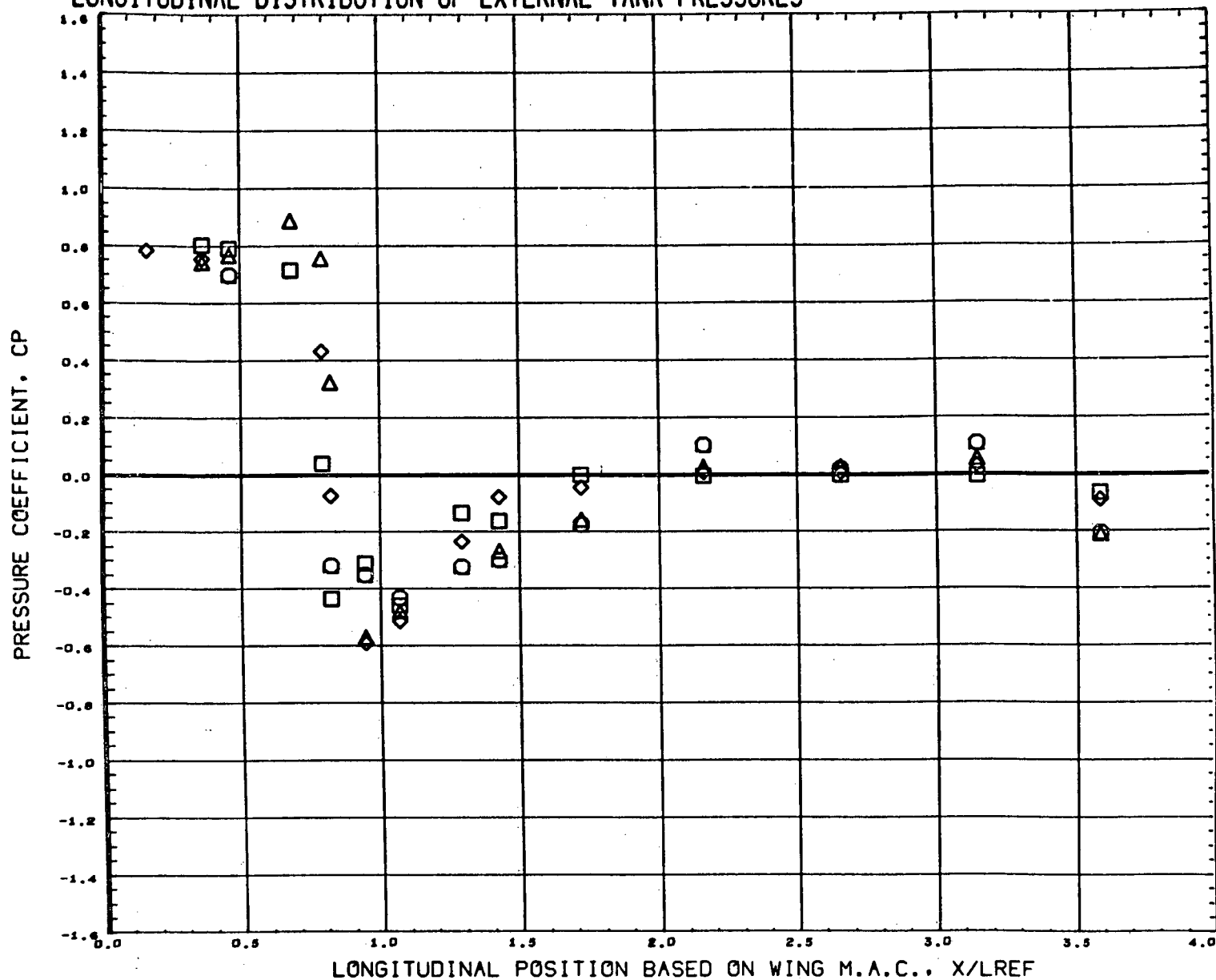


SYMBOL PHI BETA MACH
 ○ 0.000 - 4.000 1.200
 △ 15.000
 ◇ 30.000
 □ 45.000

PARAMETRIC VALUES
 ALPHA 6.000 ORBINC - 1.500
 SRBGAP 0.025

REFERENCE FILE

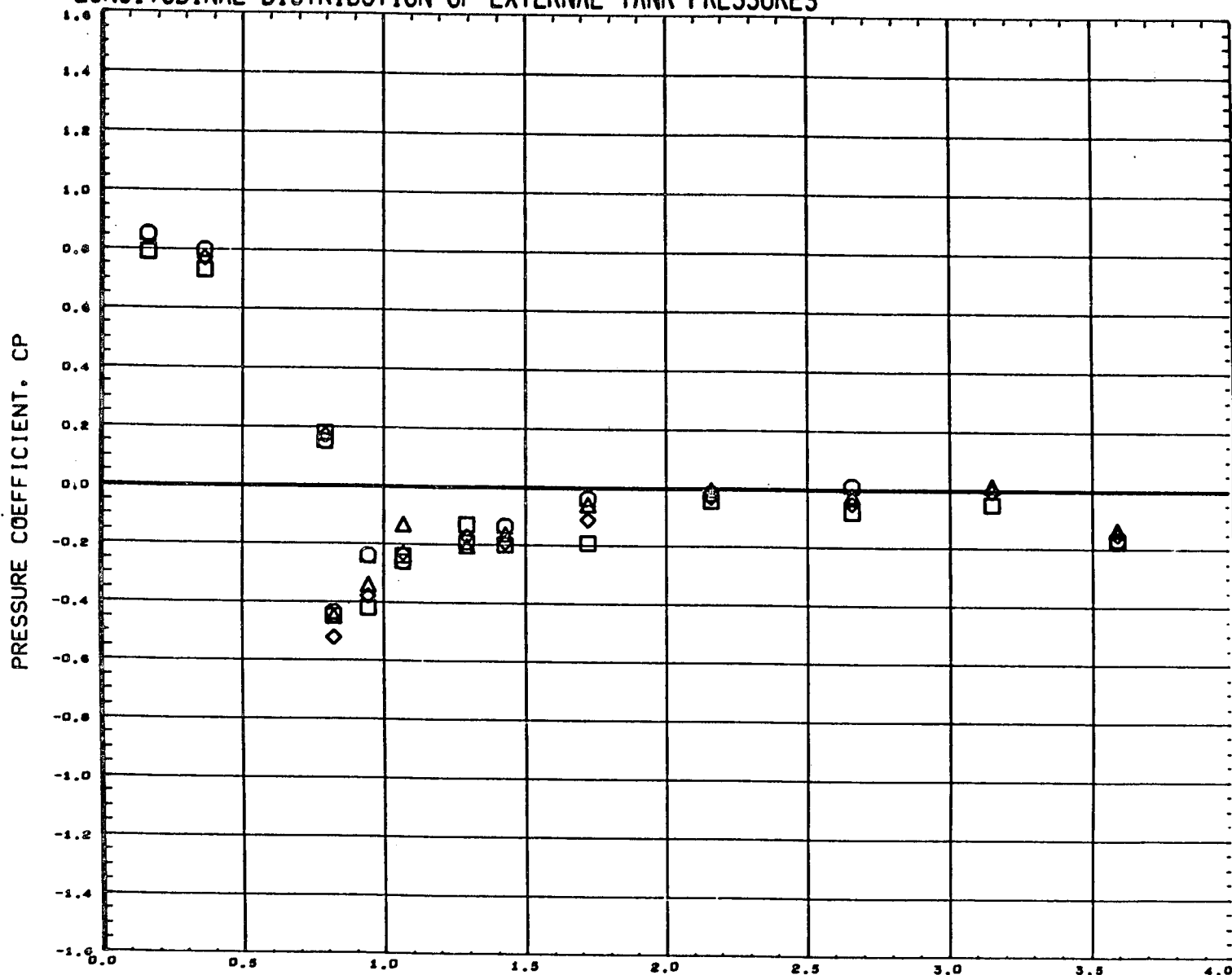
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	60.000	- 4.000	1.200	ALPHA	6.000 ORBINC - 1.500
△	75.000			SRBGAP	0.025
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	120.000	- 4.000	1.200
△	144.000		
◇	162.000		
□	180.000		

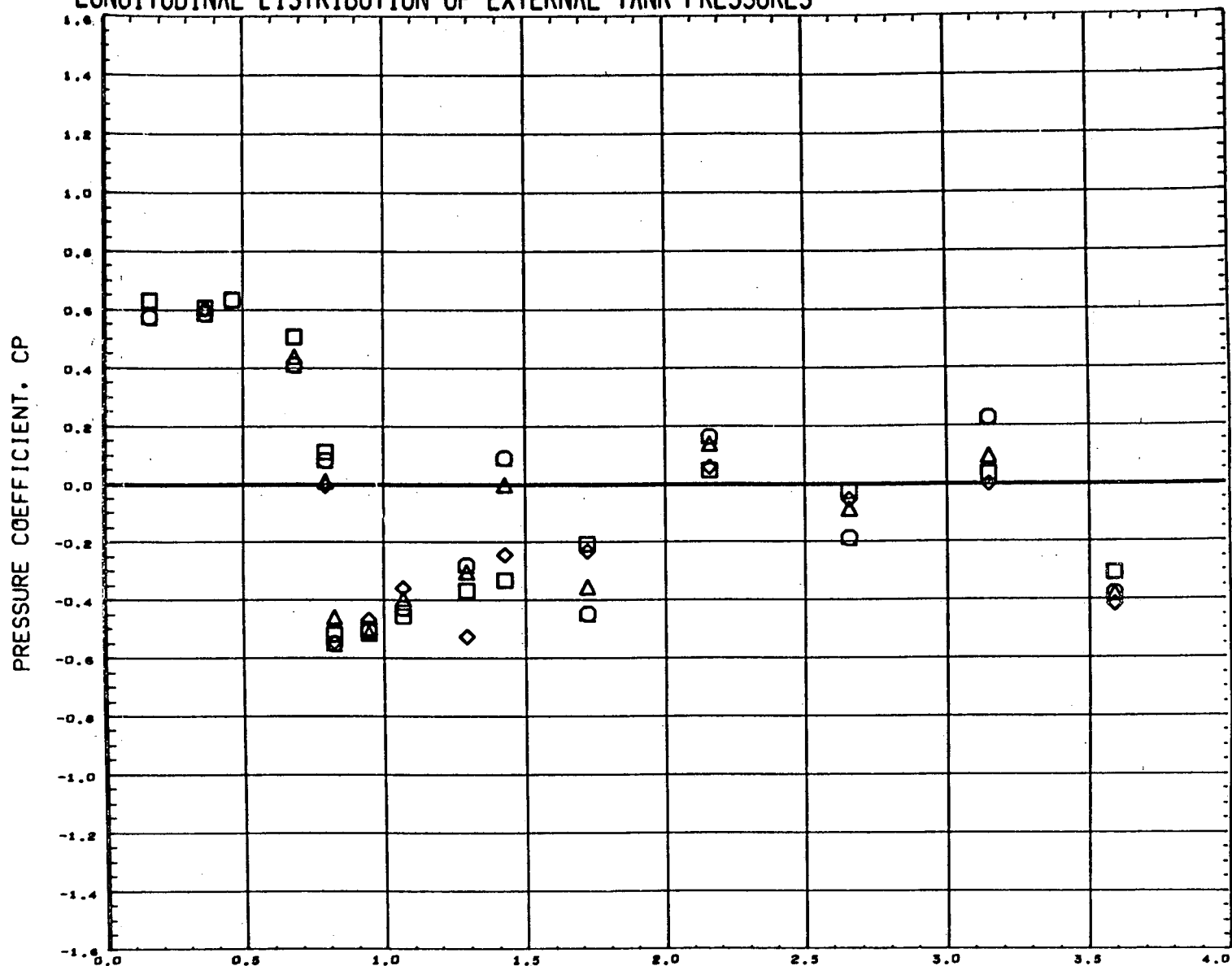
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 276

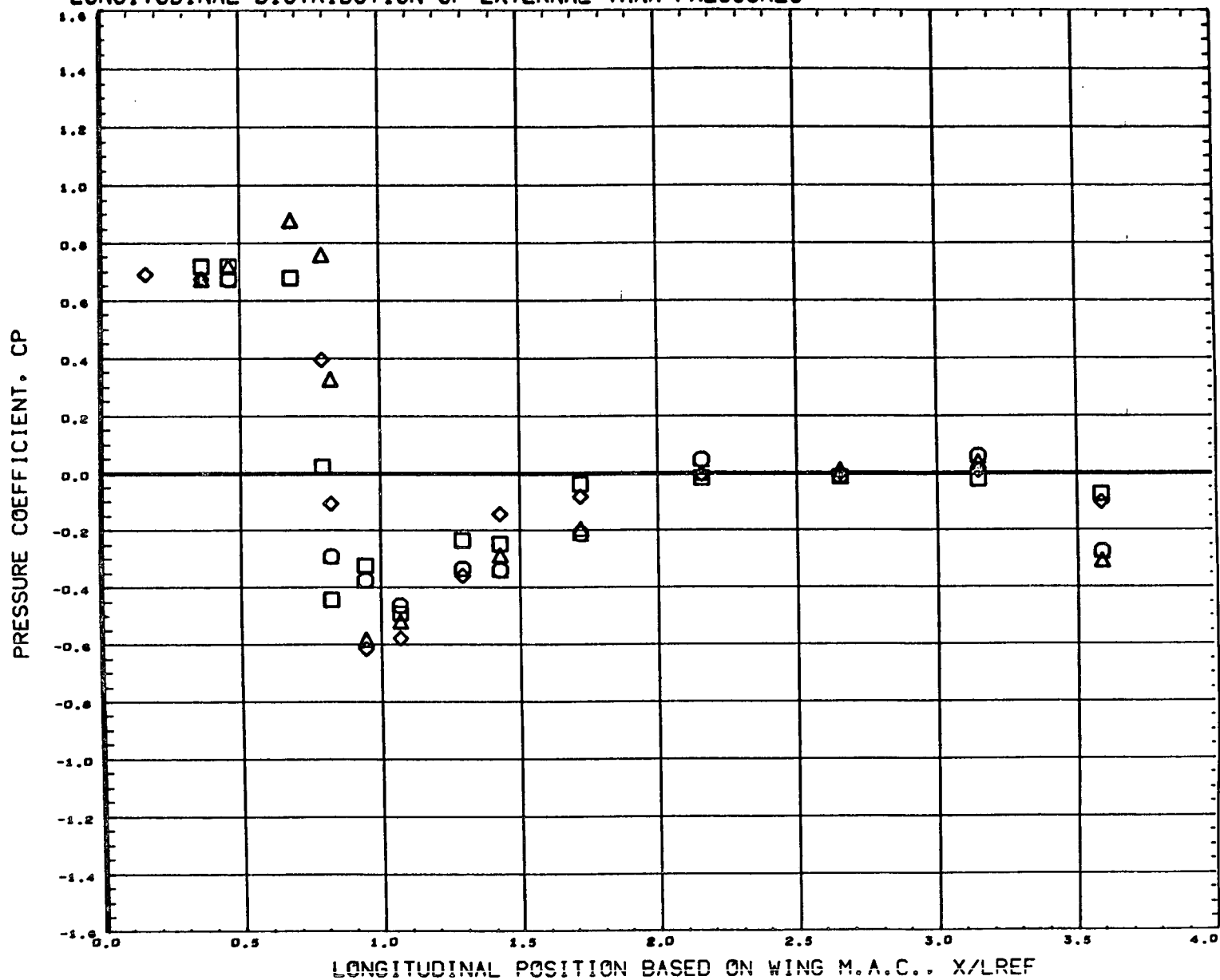
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	1.200	ALPHA	6.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



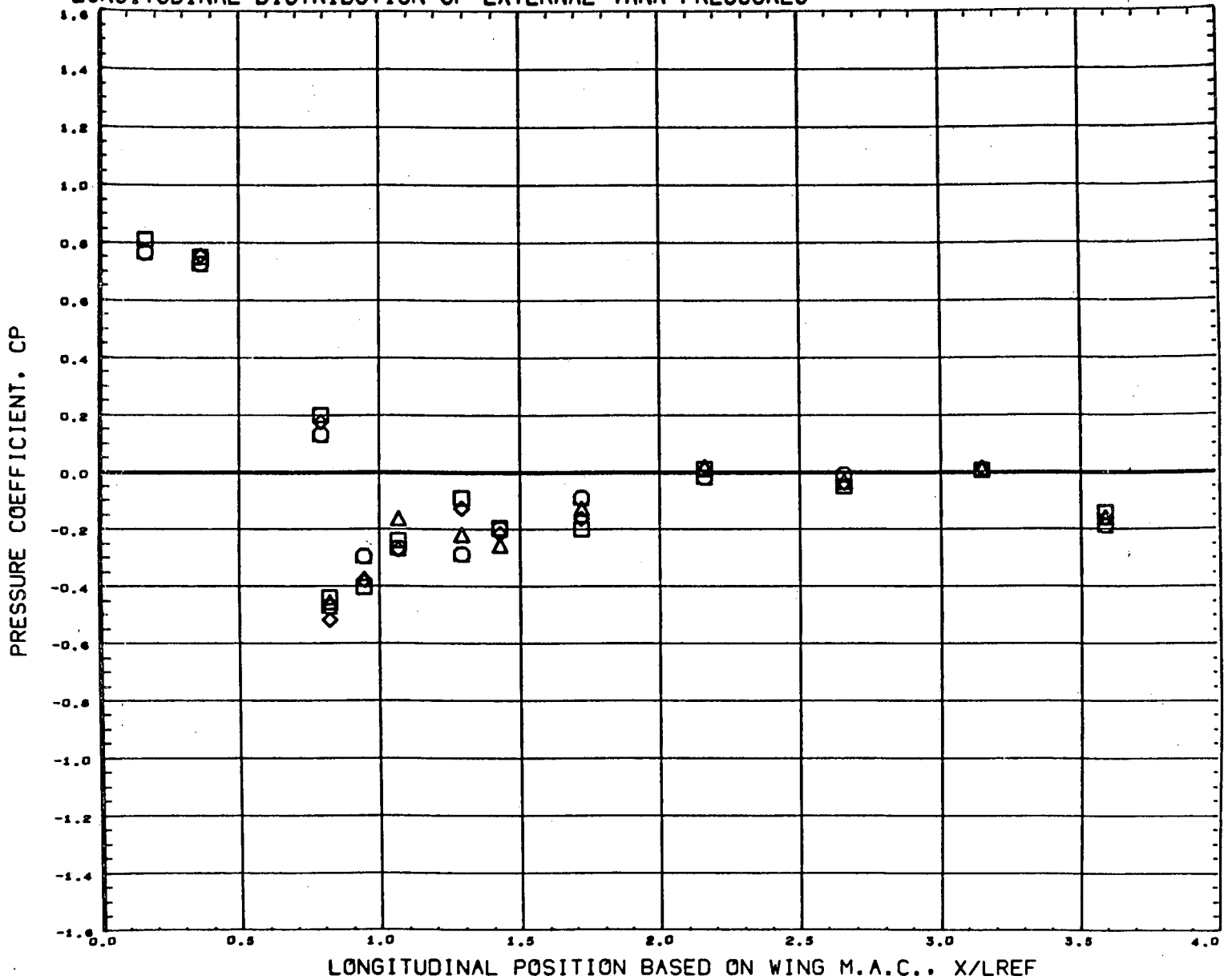
SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	60.000	0.000	1.200	ALPHA	6.000	ORBINC - 1.500
△	75.000			SRBCAP	0.025	
◇	90.000					
□	100.000					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704TK)

PAGE 278

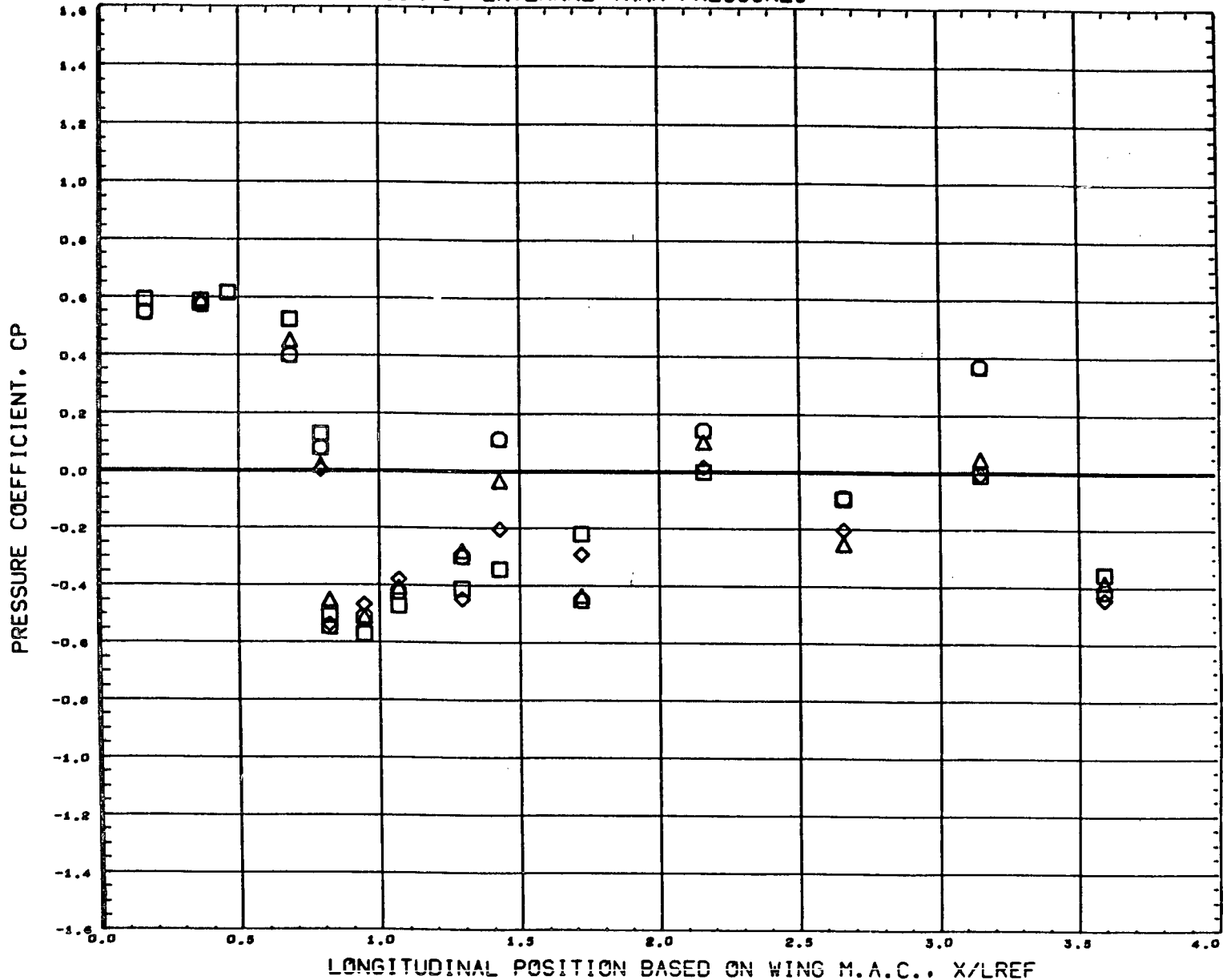
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	126.000	0.000	1.200	ALPHA	6.000	ORBINC - 1.500
△	144.000			SRBCAP	0.025	
◇	162.000					
□	180.000					

REFERENCE FILE

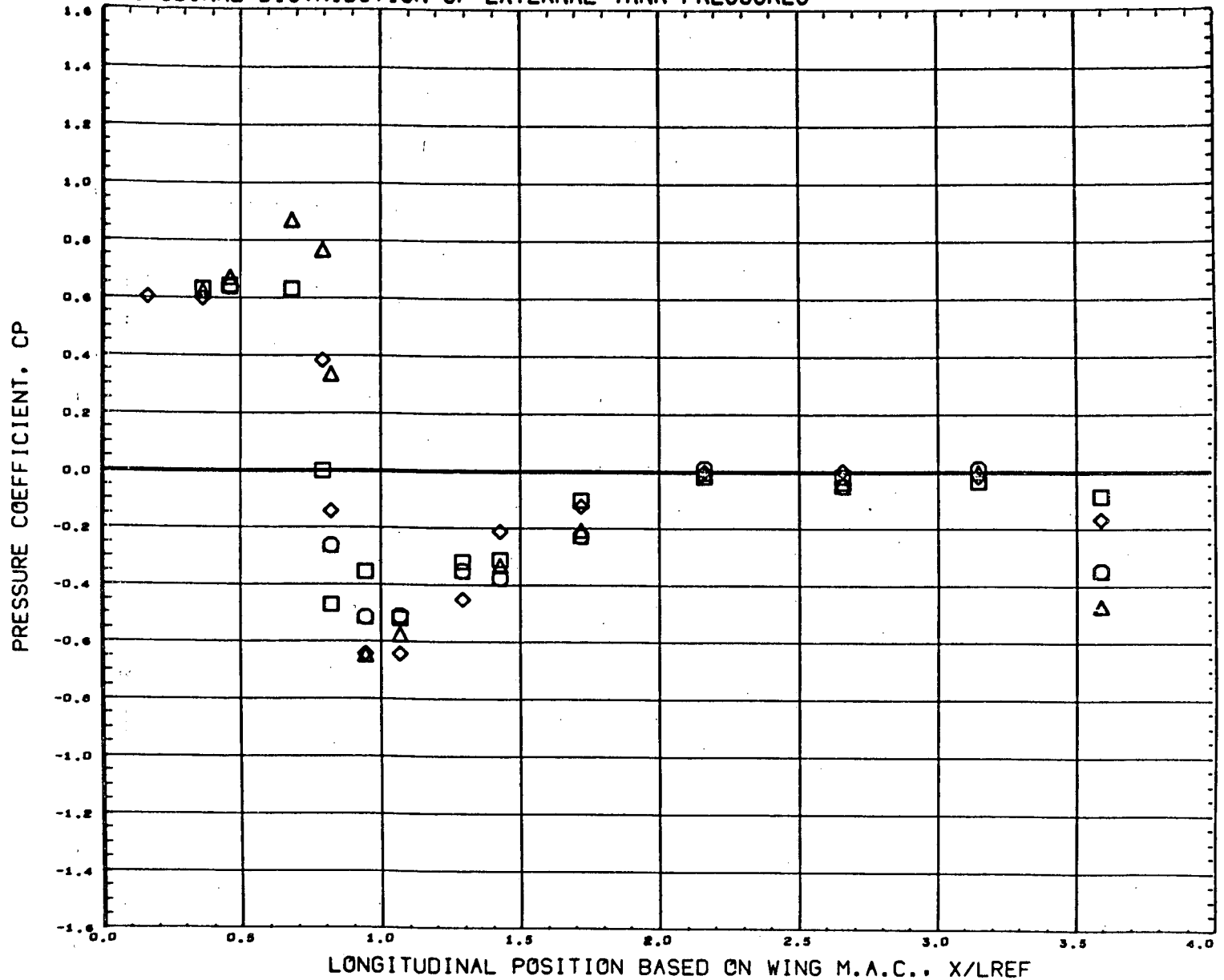
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	1.200	ALPHA	6.000	ORBINC - 1.500
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

REFERENCE FILE

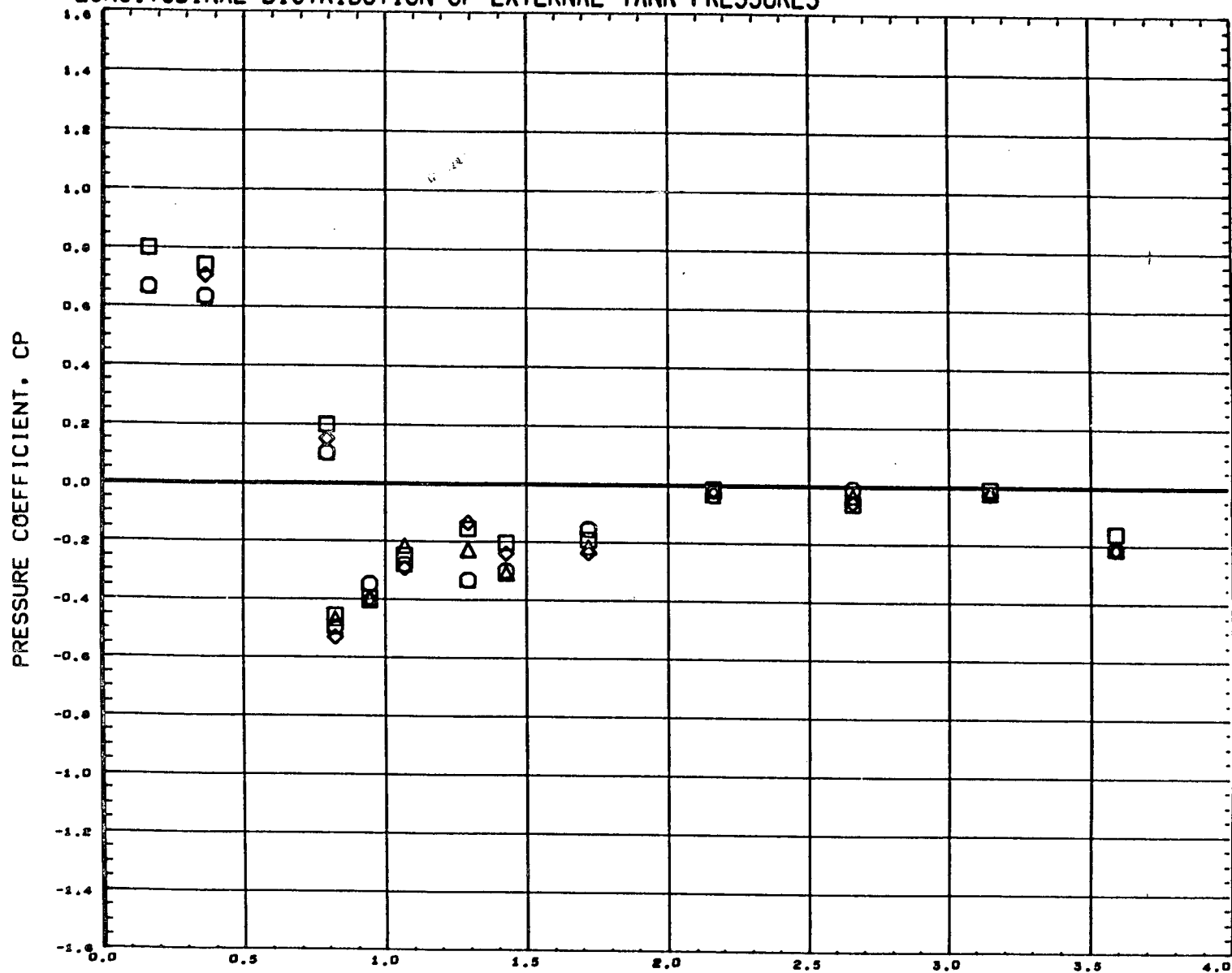
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	60.000	4.000	1.200	ALPHA	6.000
△	75.000			SRBCAP	0.025
◇	90.000				
□	100.000				

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
O	126.000	4.000	1.200
△	144.000		
◇	162.000		
□	180.000		

PARAMETRIC VALUES	
ALPHA	6.000
SRBGAP	0.025
ORBINC	- 1.500

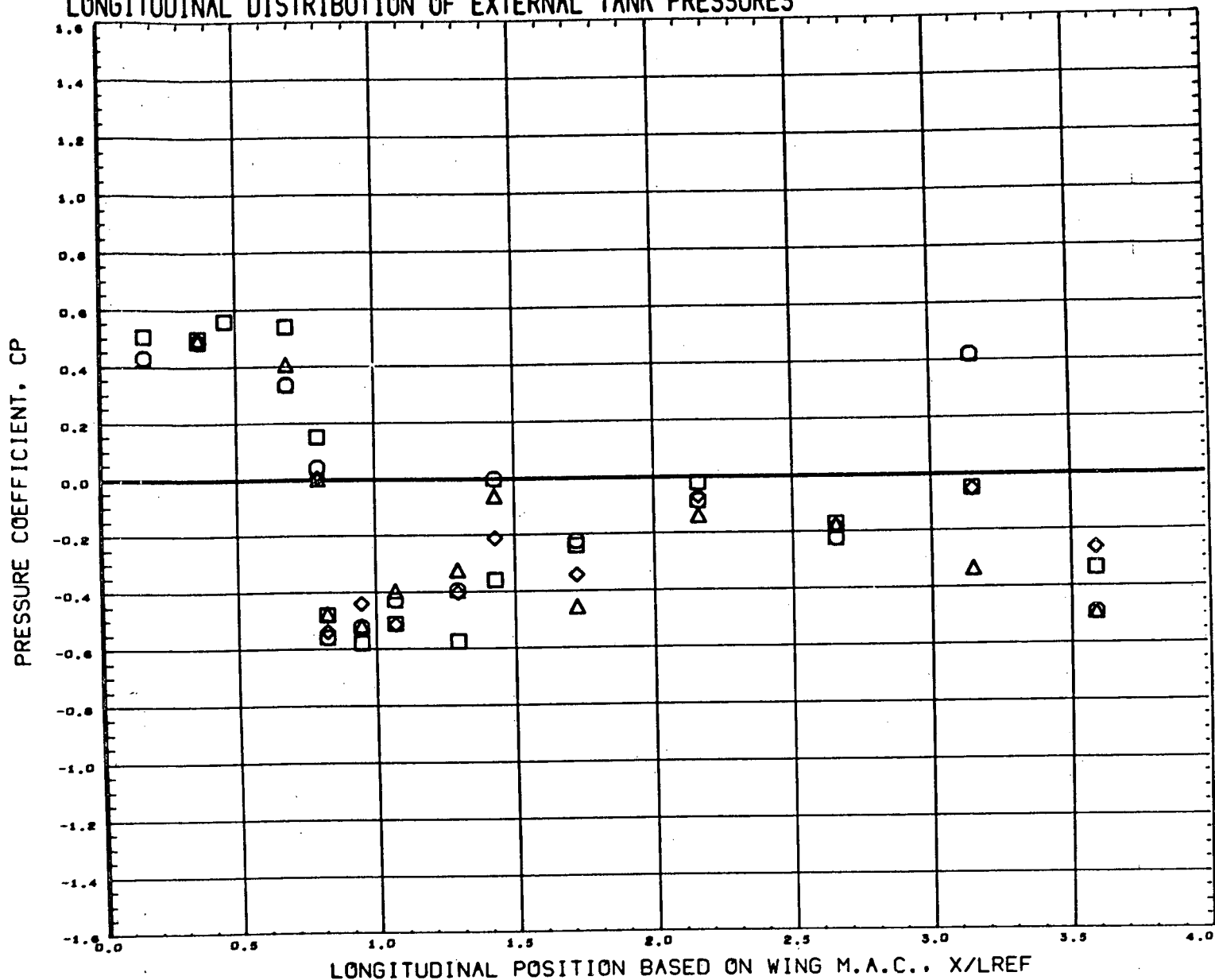
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 282

C

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



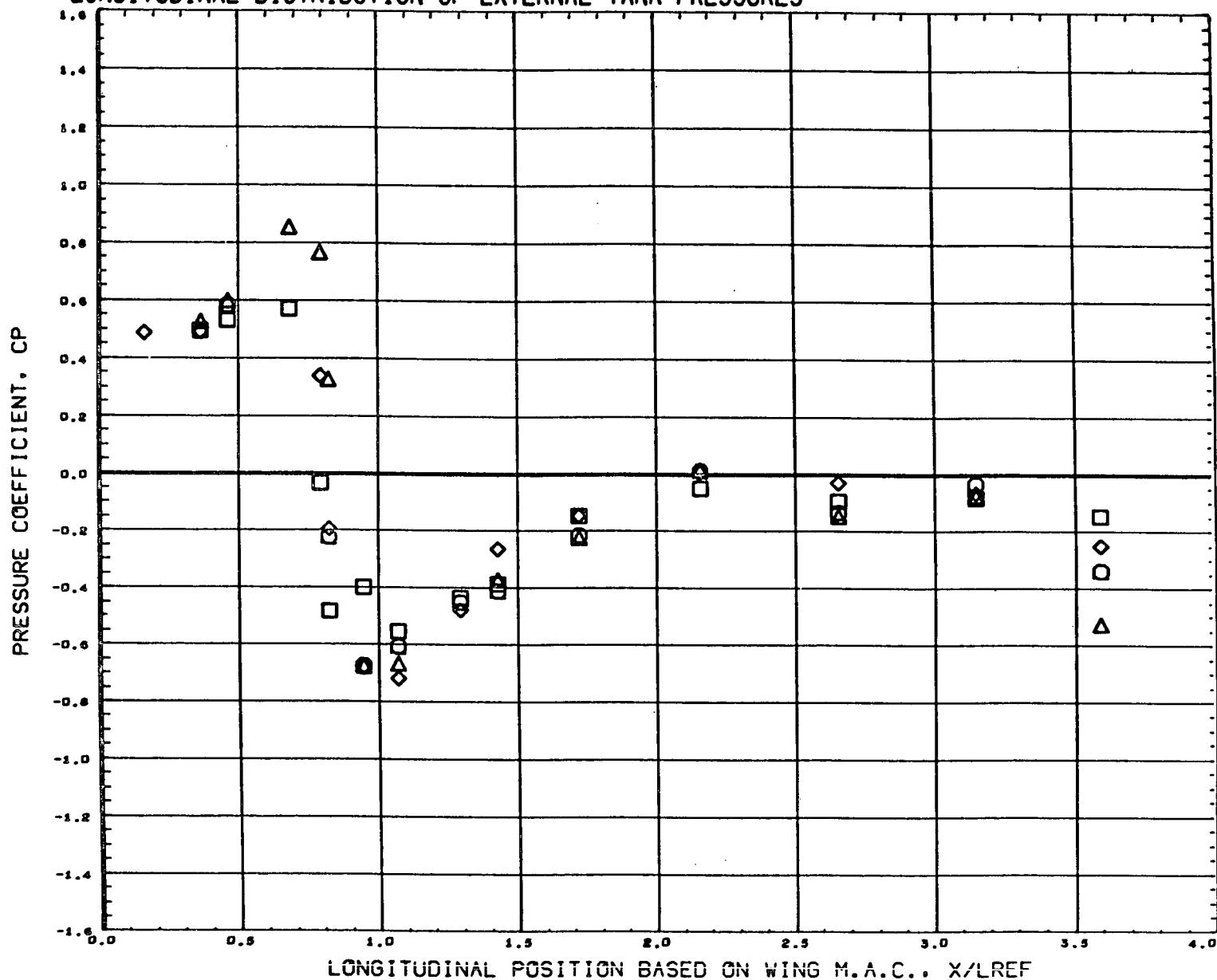
SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	1.200	ALPHA	6.000
△	15.000			SRBGAP	0.025
◇	30.000			ORBINC	- 1.500
□	45.000				

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704TK)

PAGE 283

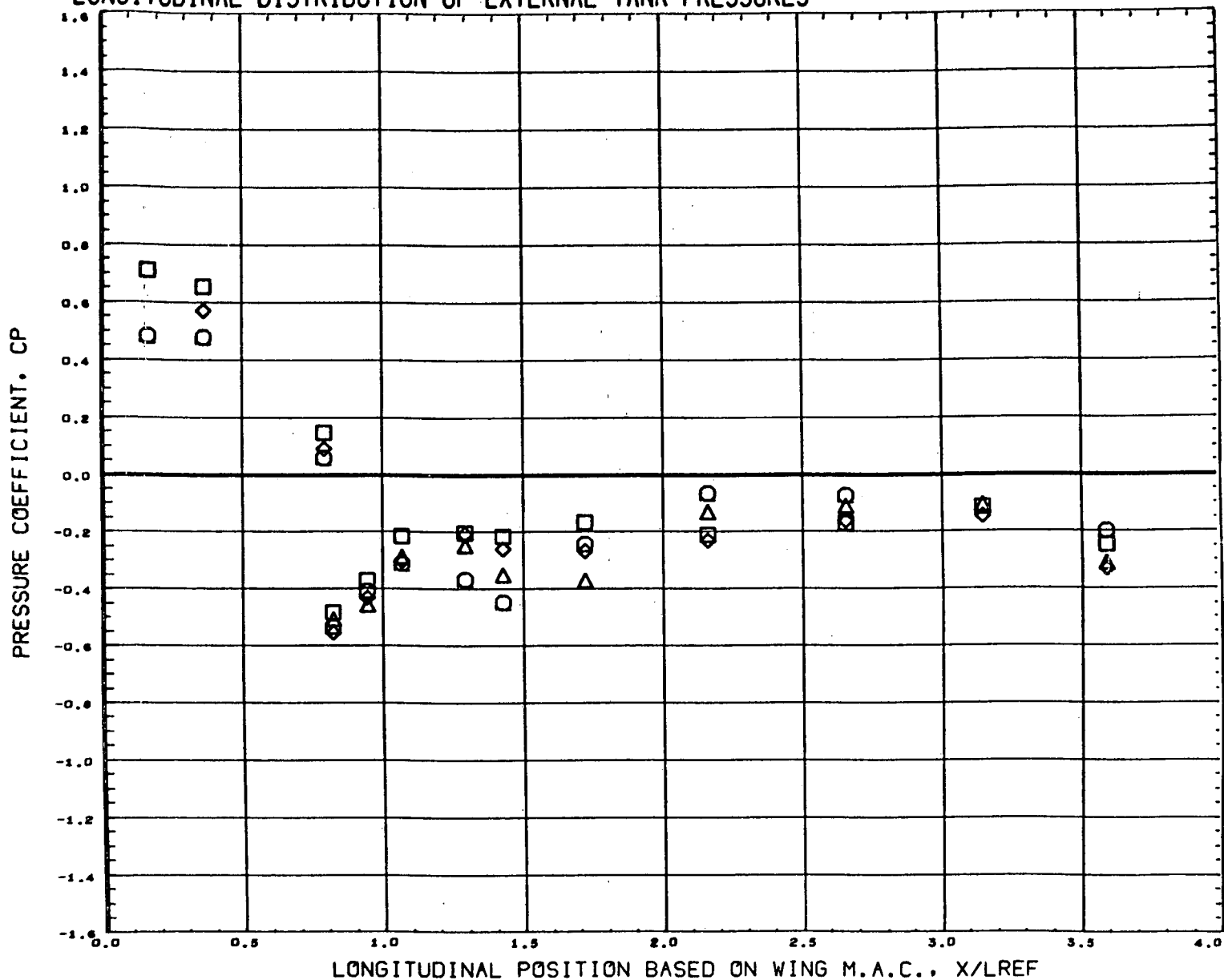
LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	60.000	10.000	1.200	ALPHA	6.000	ORBINC - 1.500
△	75.000			SRBGAP	0.025	
◇	90.000					
□	100.000					

REFERENCE FILE

LONGITUDINAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	126.000	10.000	1.200
△	144.000		
◇	162.000		
□	180.000		

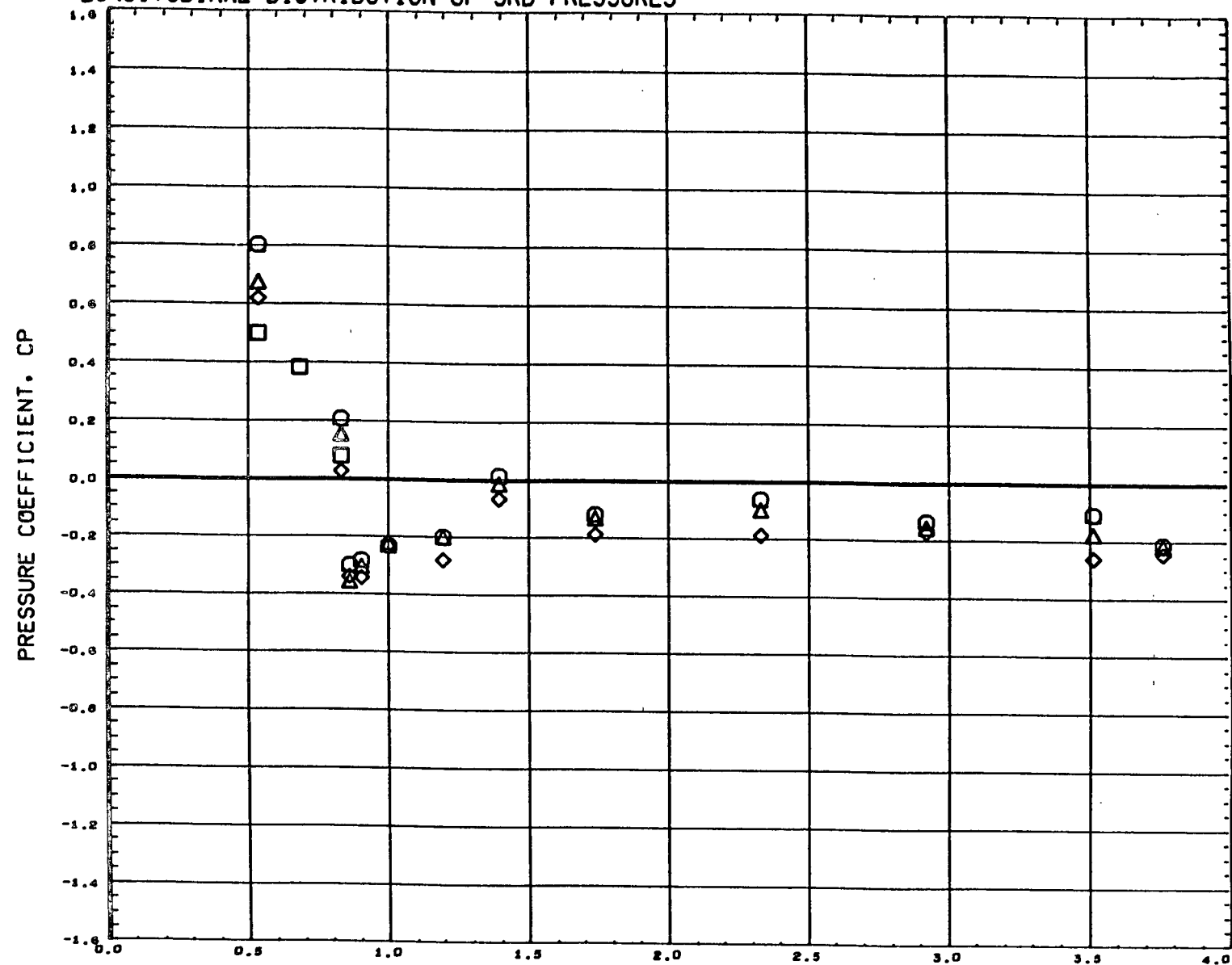
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBCAP	0.025	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704TK)

PAGE 285

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
○
△
◇
□

PHI
0.000 - 10.000
15.000
30.000
45.000

MACH
1.200

PARAMETRIC VALUES

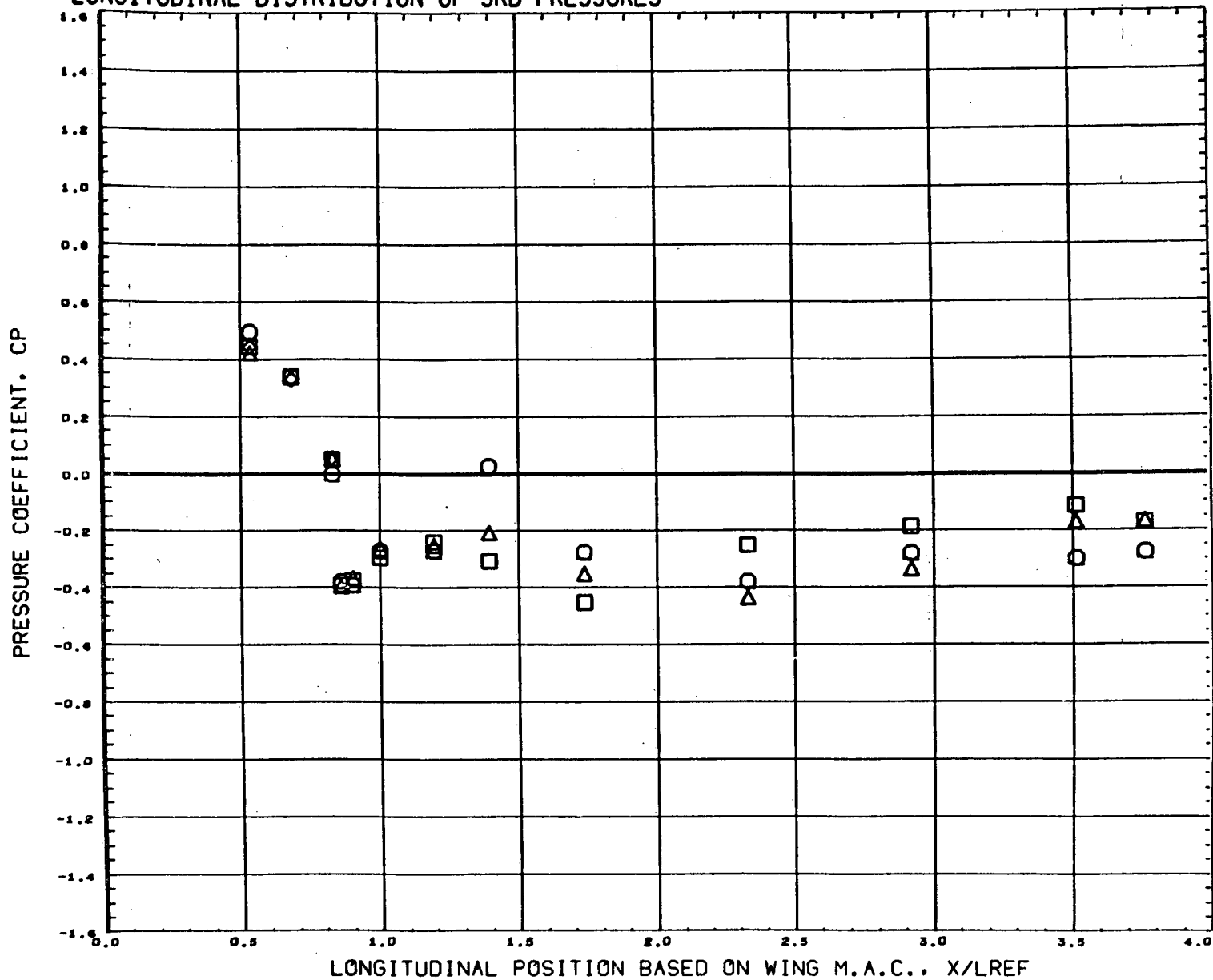
BETA 0.000 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED. T1S1 (R705SM)

PAGE 286

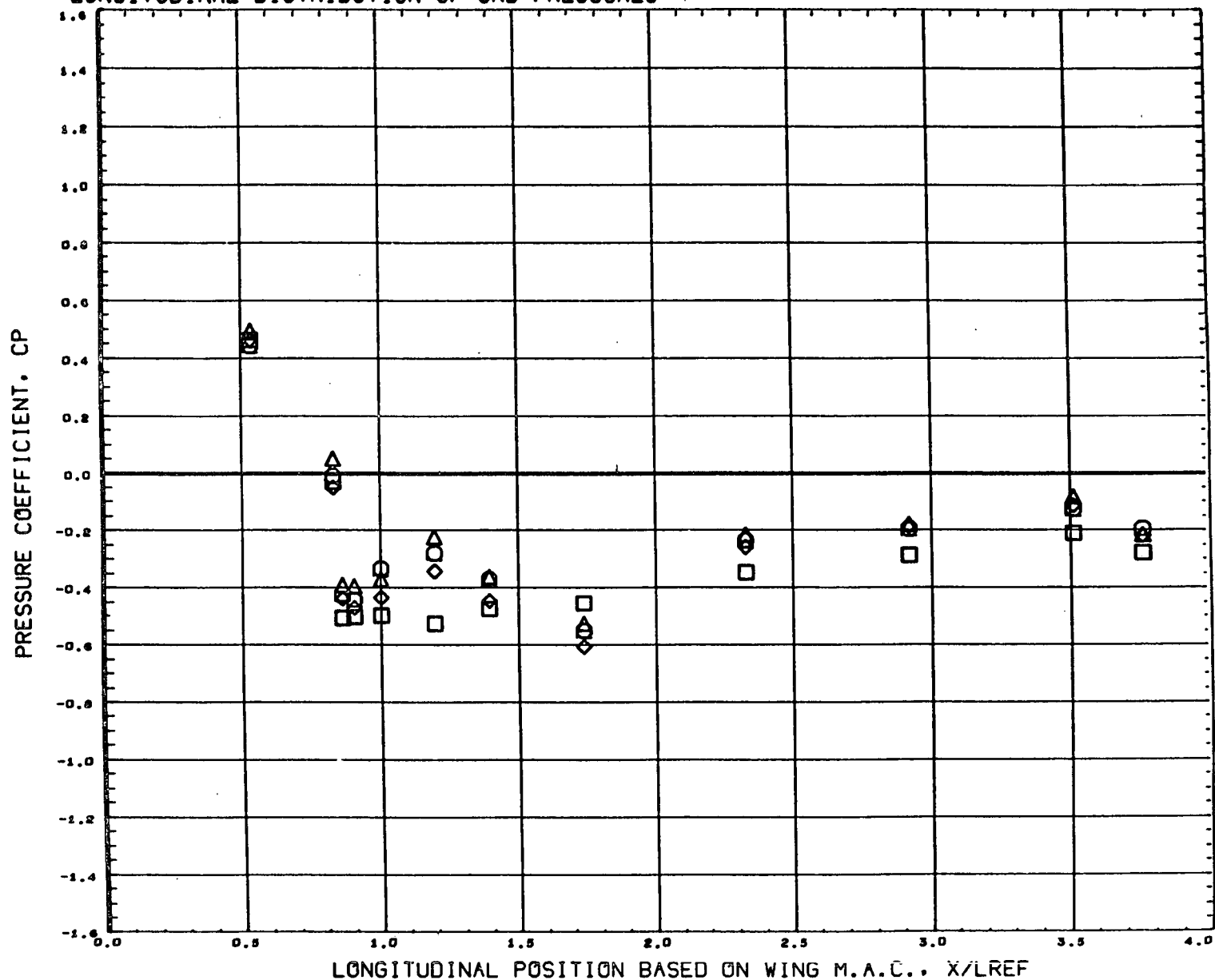
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60,000	- 10,000	1.200	BETA	0.000	SRBGAP 0.025
△	75,000					
◇	90,000					
□	105,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

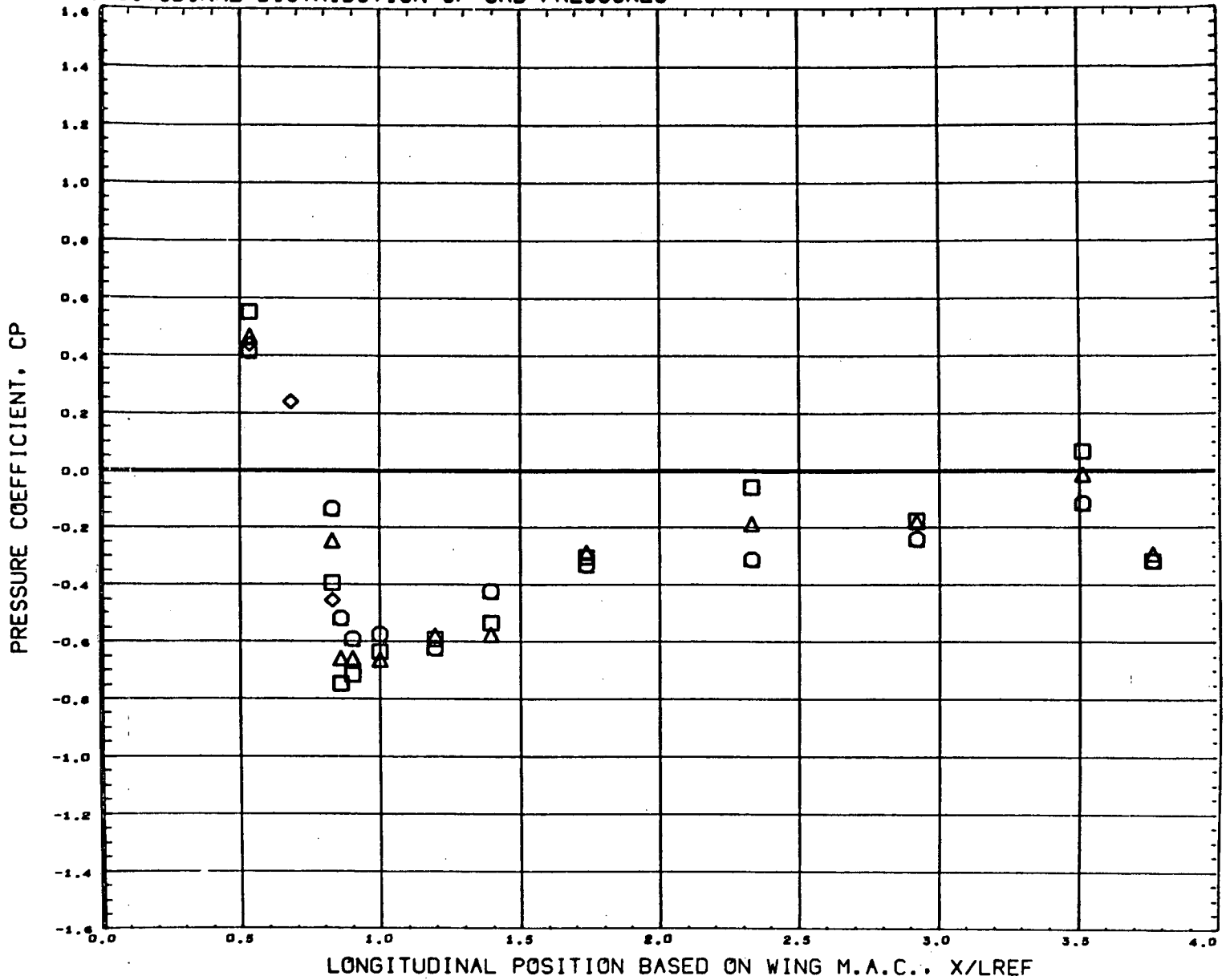
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	- 10.000	1.200	BETA	0.000	SRBGAP 0.025
△	135.000					
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

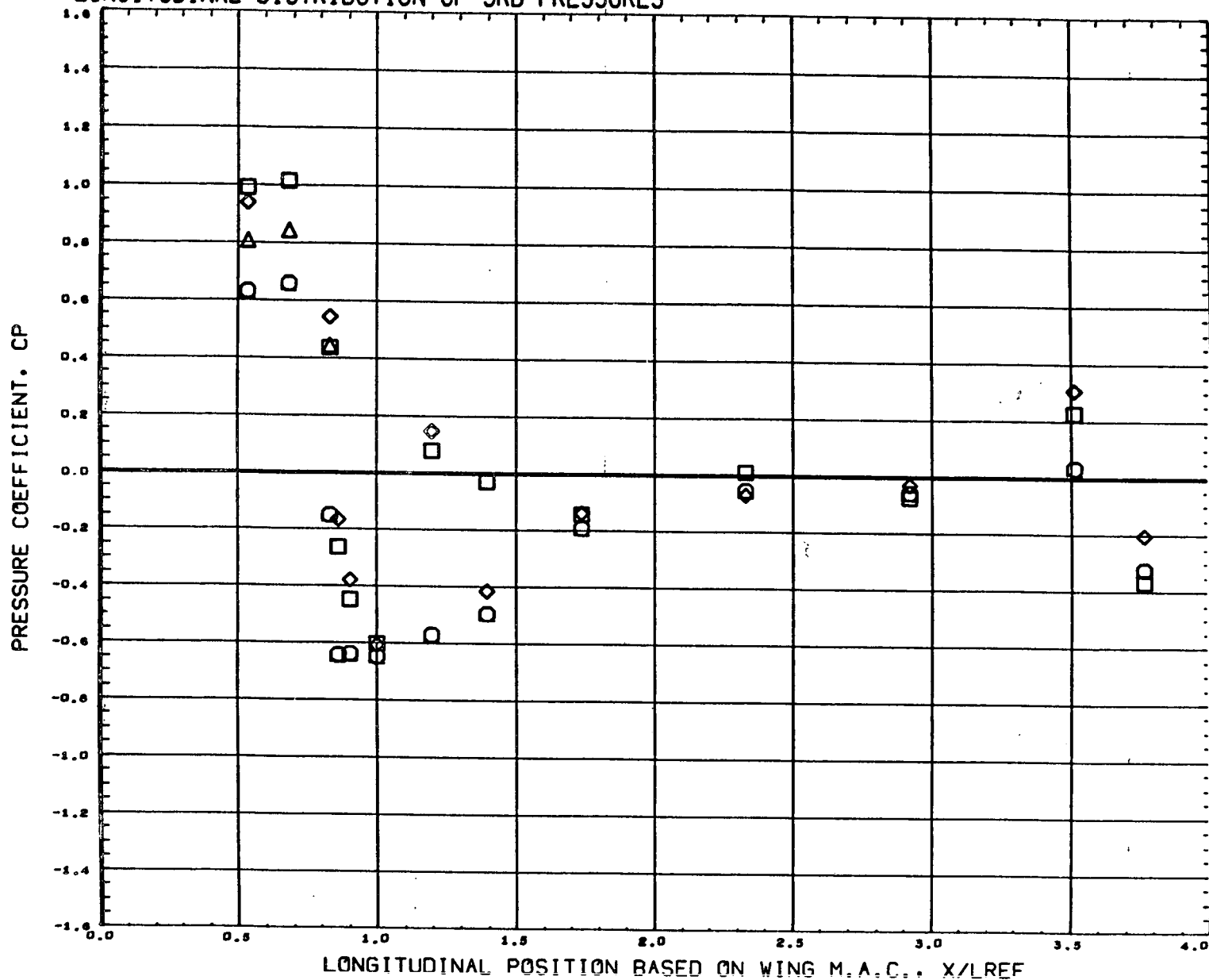
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	180,000	- 10.000	1.200	BETA	0.000	SRBGAP 0.025
△	195,000					
◇	210,000					
□	225,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

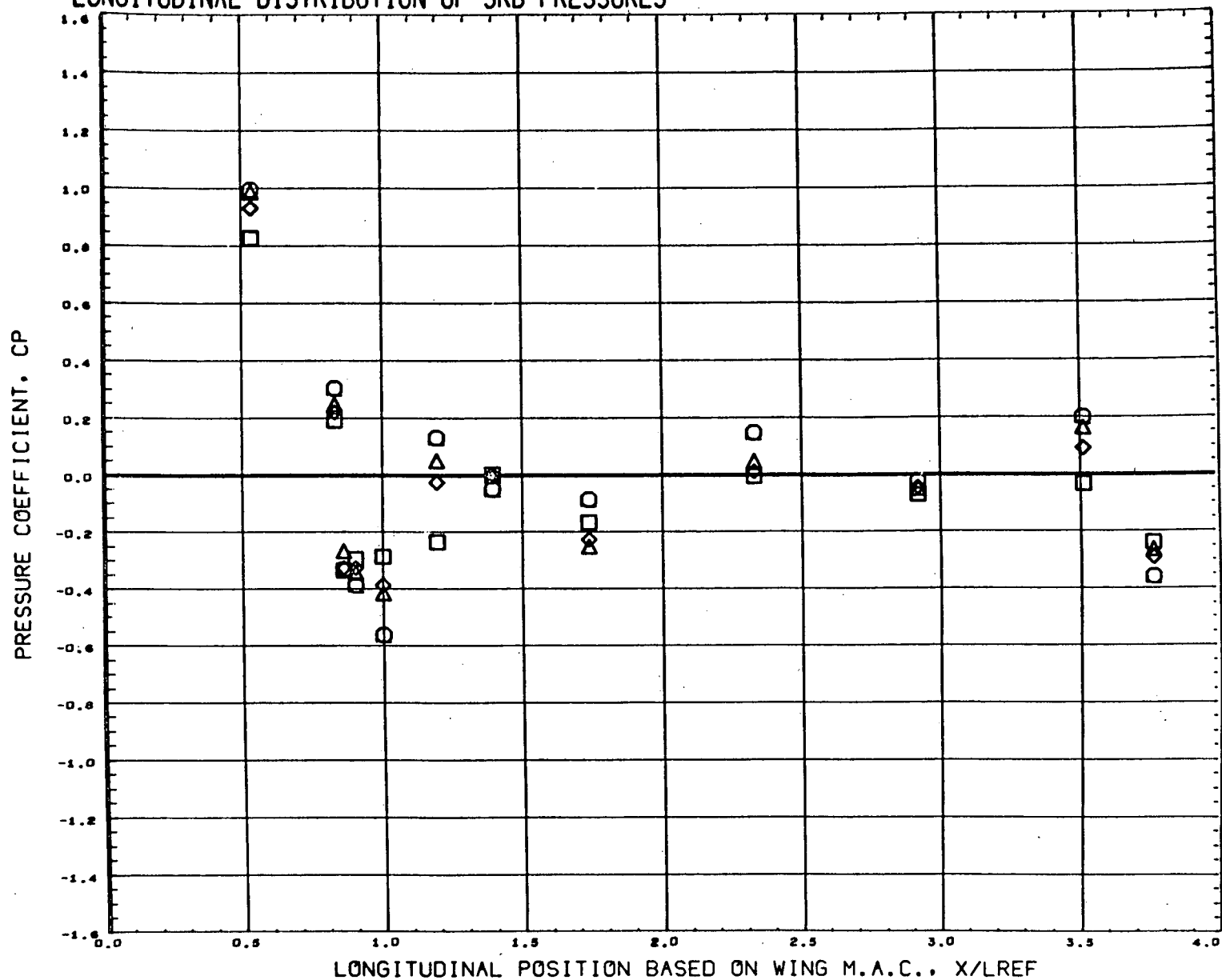
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES
○	240,000	- 10,000	1.200	0.000	SRBGAP 0.025
△	255,000				
◇	270,000				
□	285,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

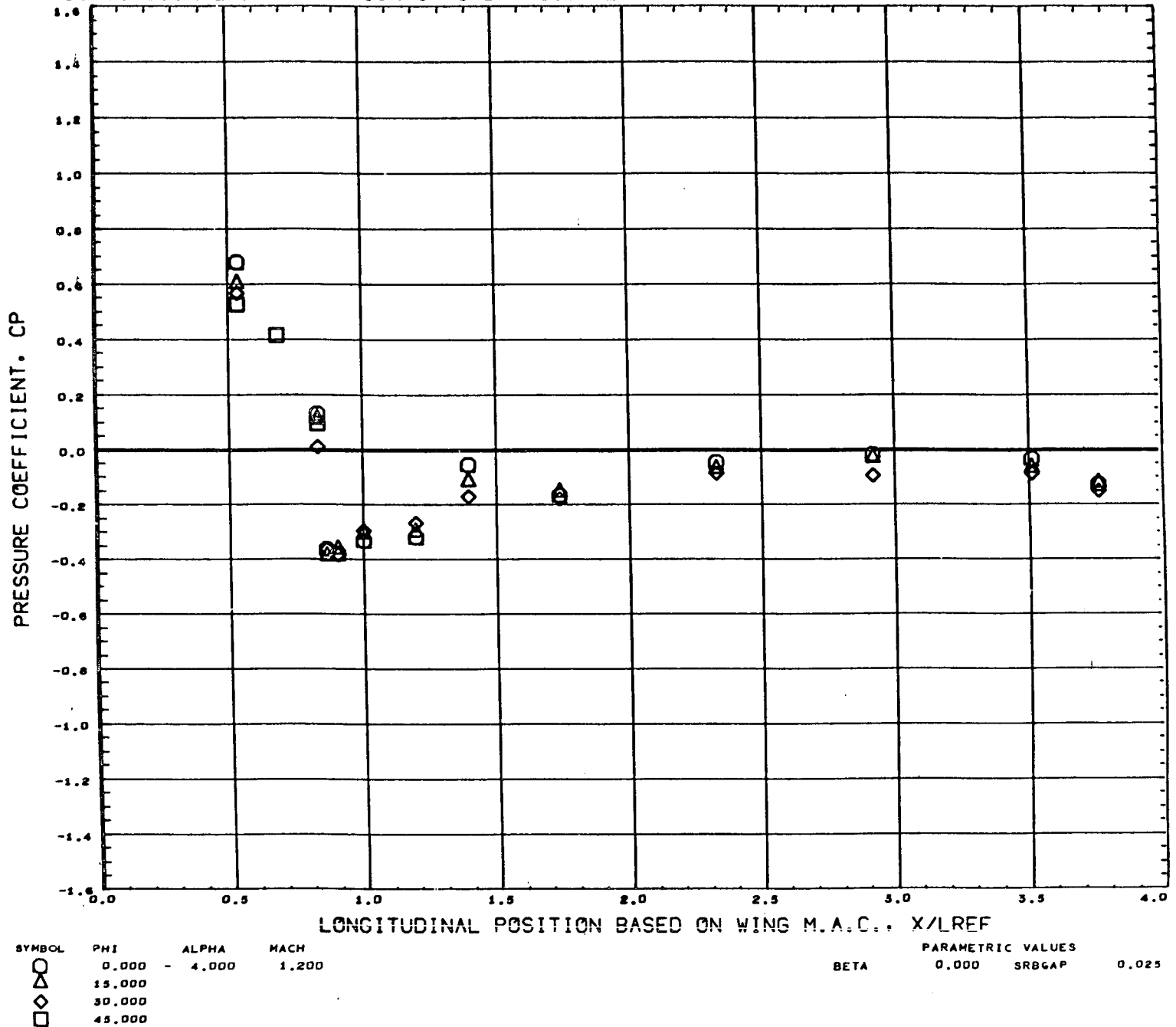
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	300,000	- 10,000	1,200	0,000	SRBGAP	0,025
△	315,000					
◇	330,000					
□	345,000					

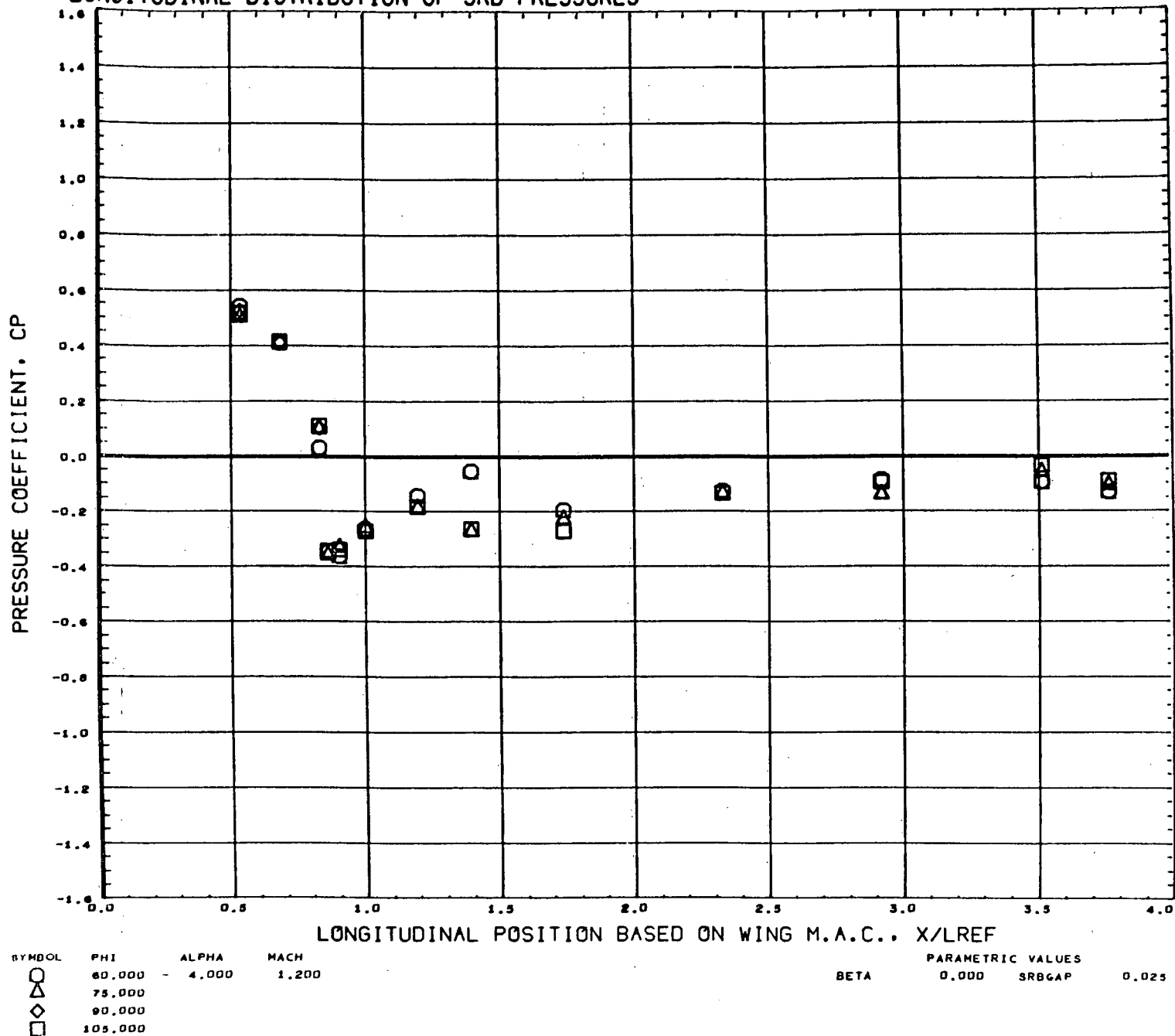
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



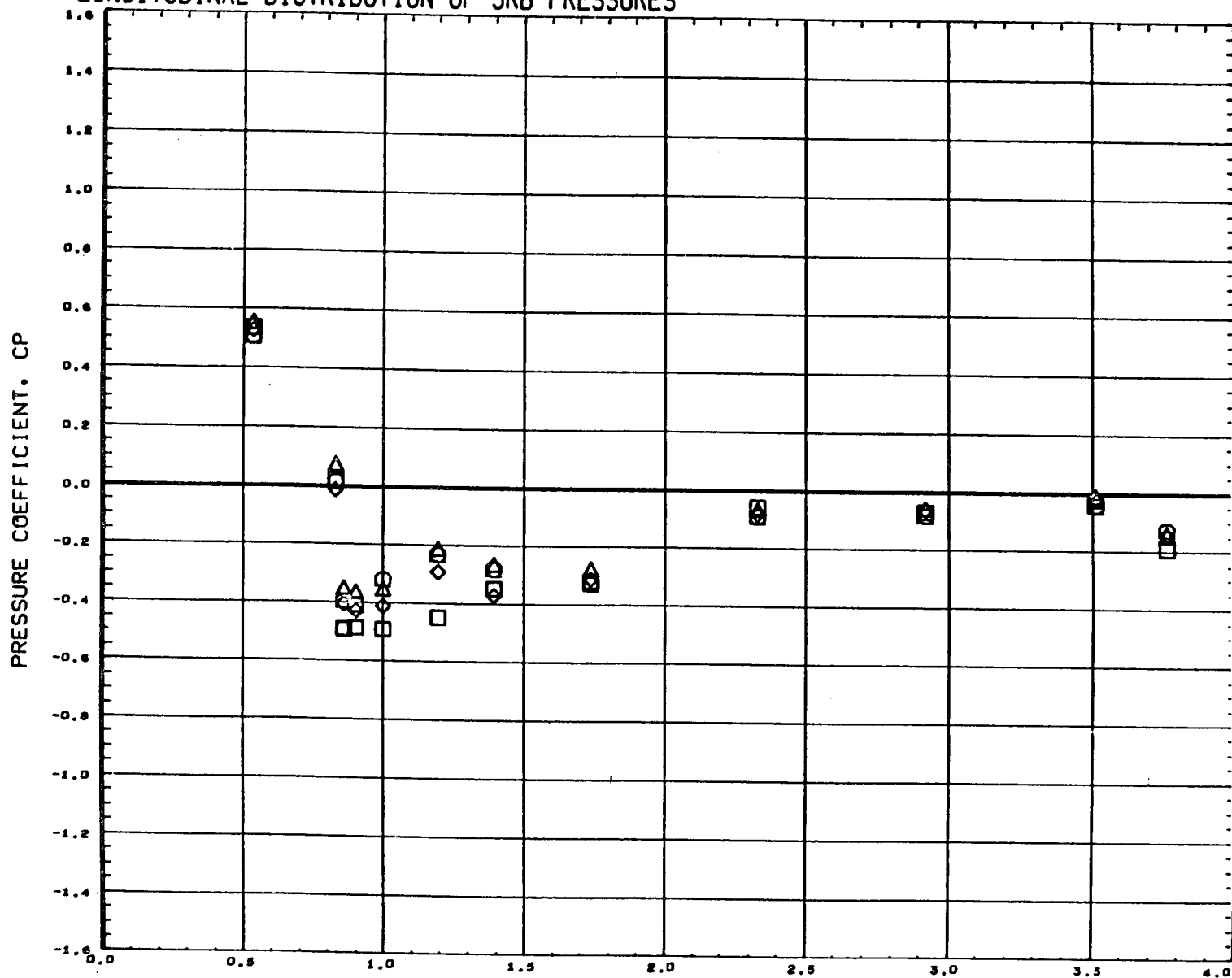
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

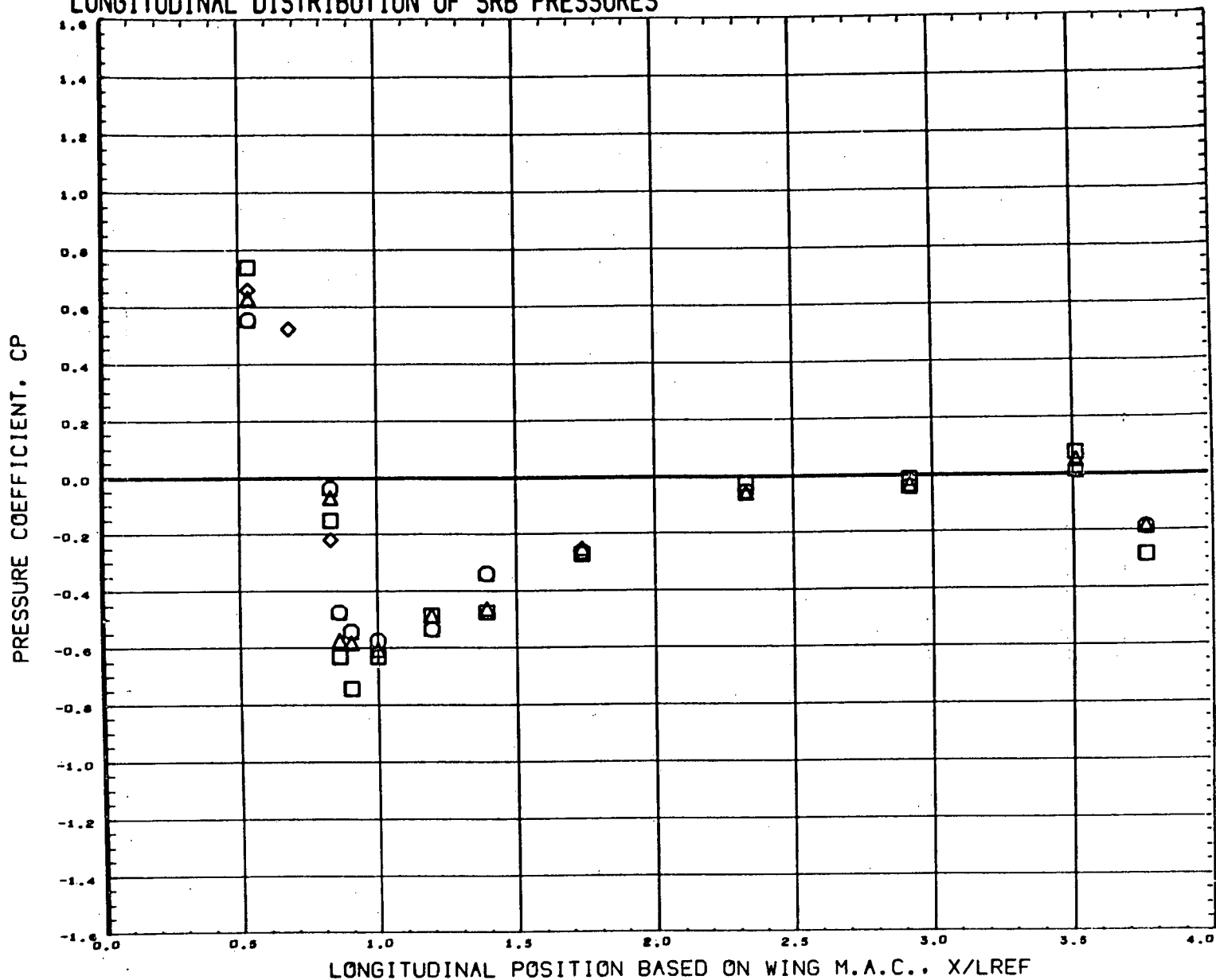
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	4.000	1.200	BETA	0.000	SRBGAP
△	135.000				0.025	
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

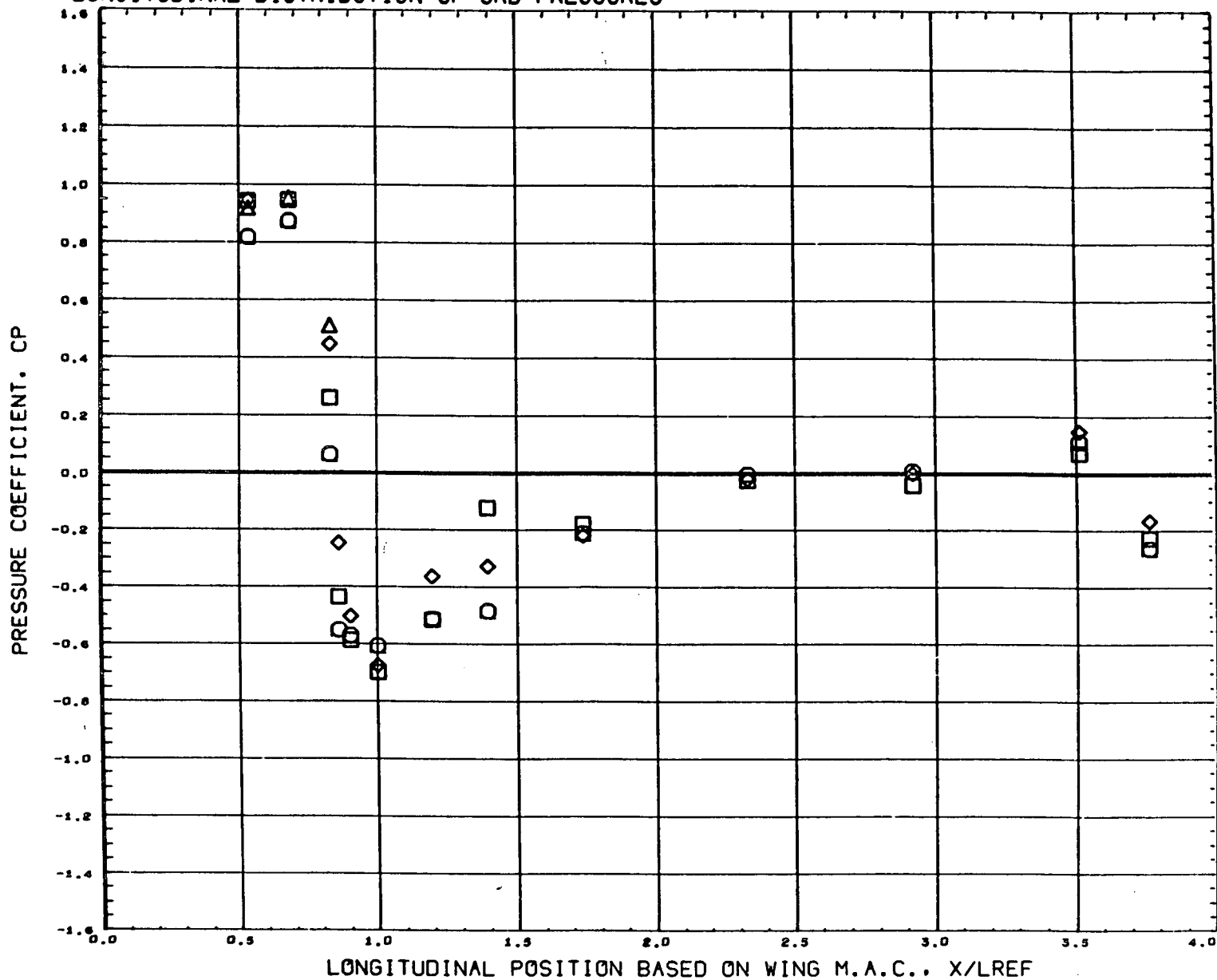
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	SRBGAP	
○	160.000	4.000	1.200	0.000		0.025	
△	195.000						
◇	210.000						
□	225.000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

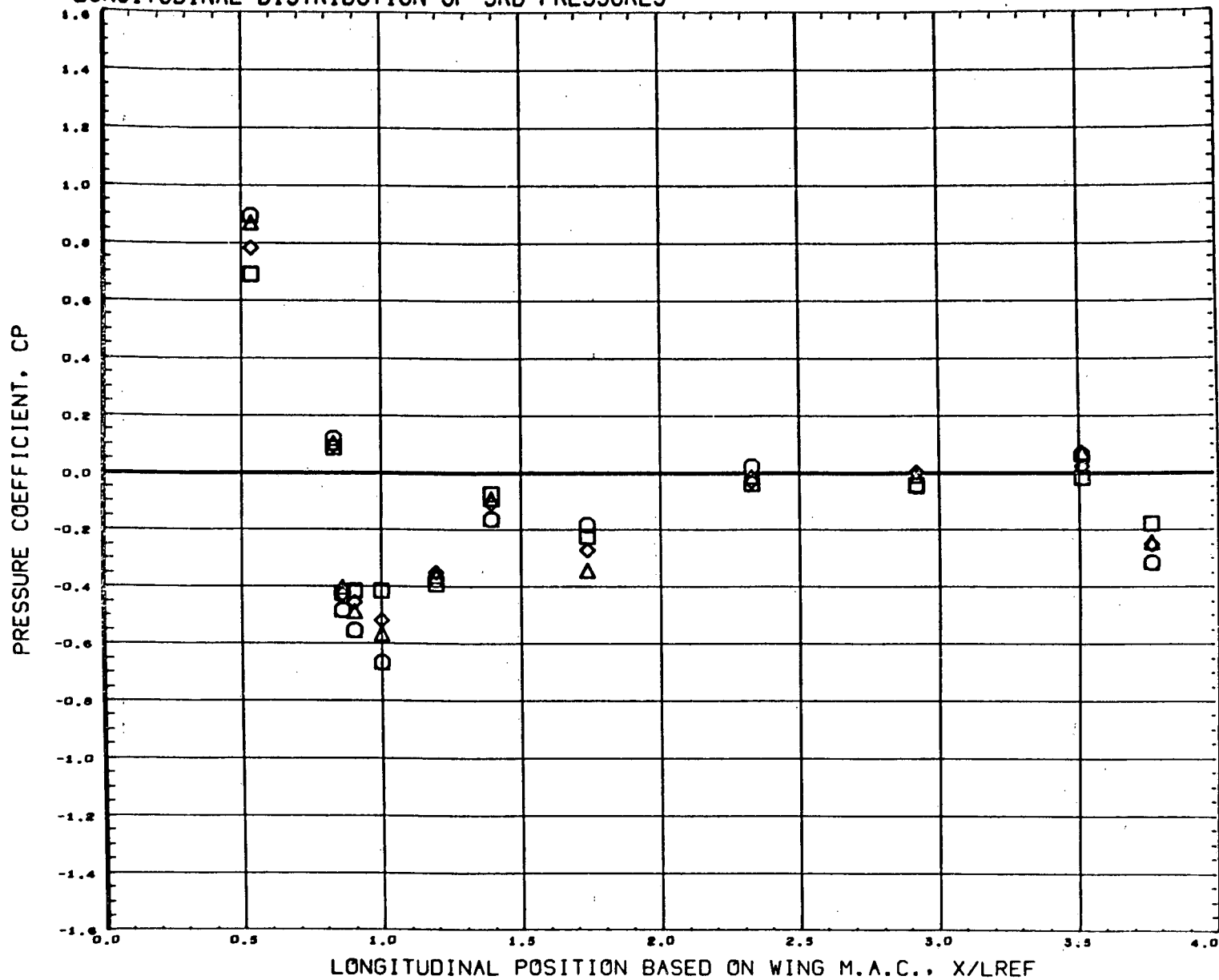
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	240,000	4.000	1.200	0.000	SRBGAP	0.025
△	255,000					
◇	270,000					
□	285,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

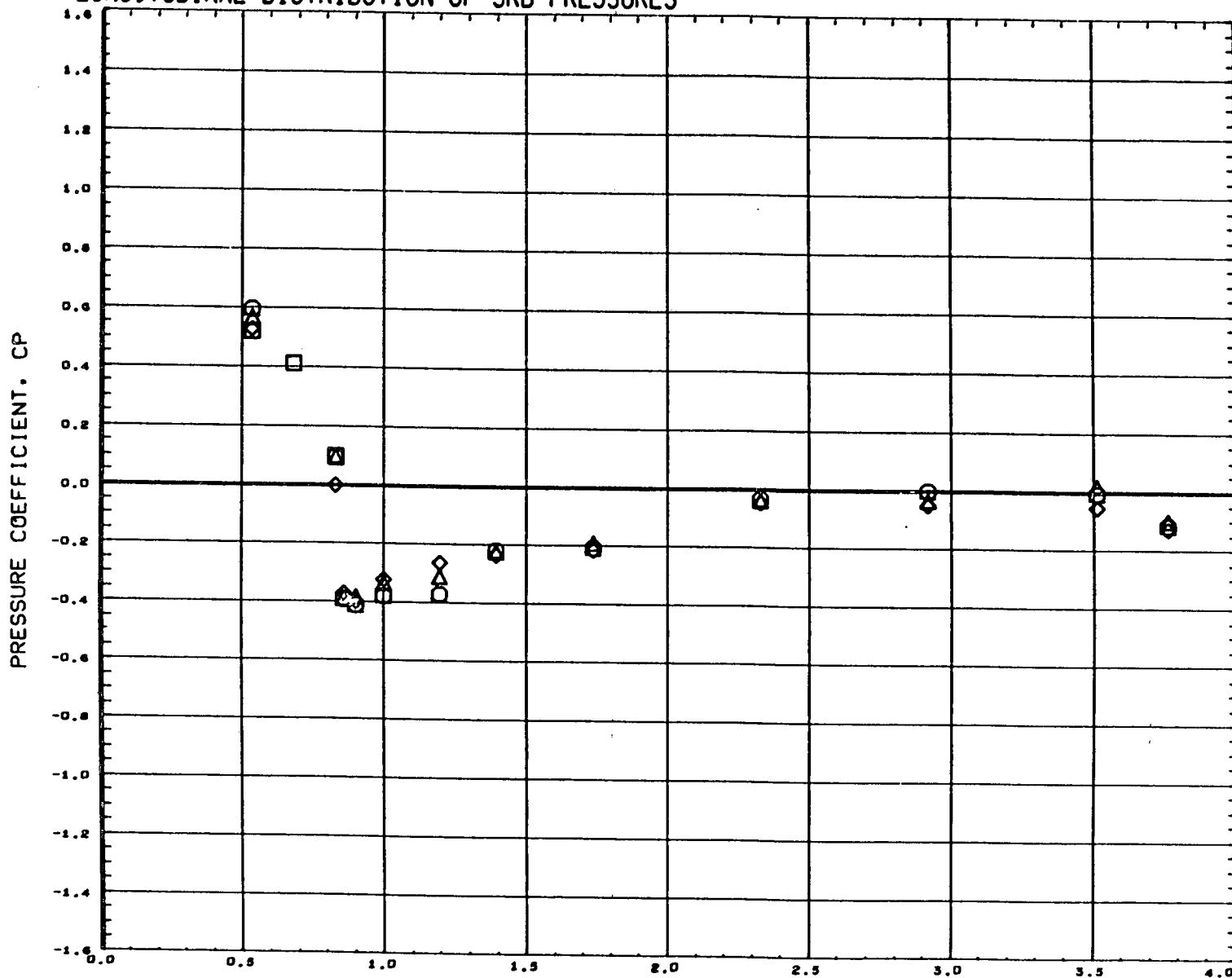
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300.000	4.000	1.200	BETA	0.000	SRBGAP 0.025
△	315.000					
◇	330.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

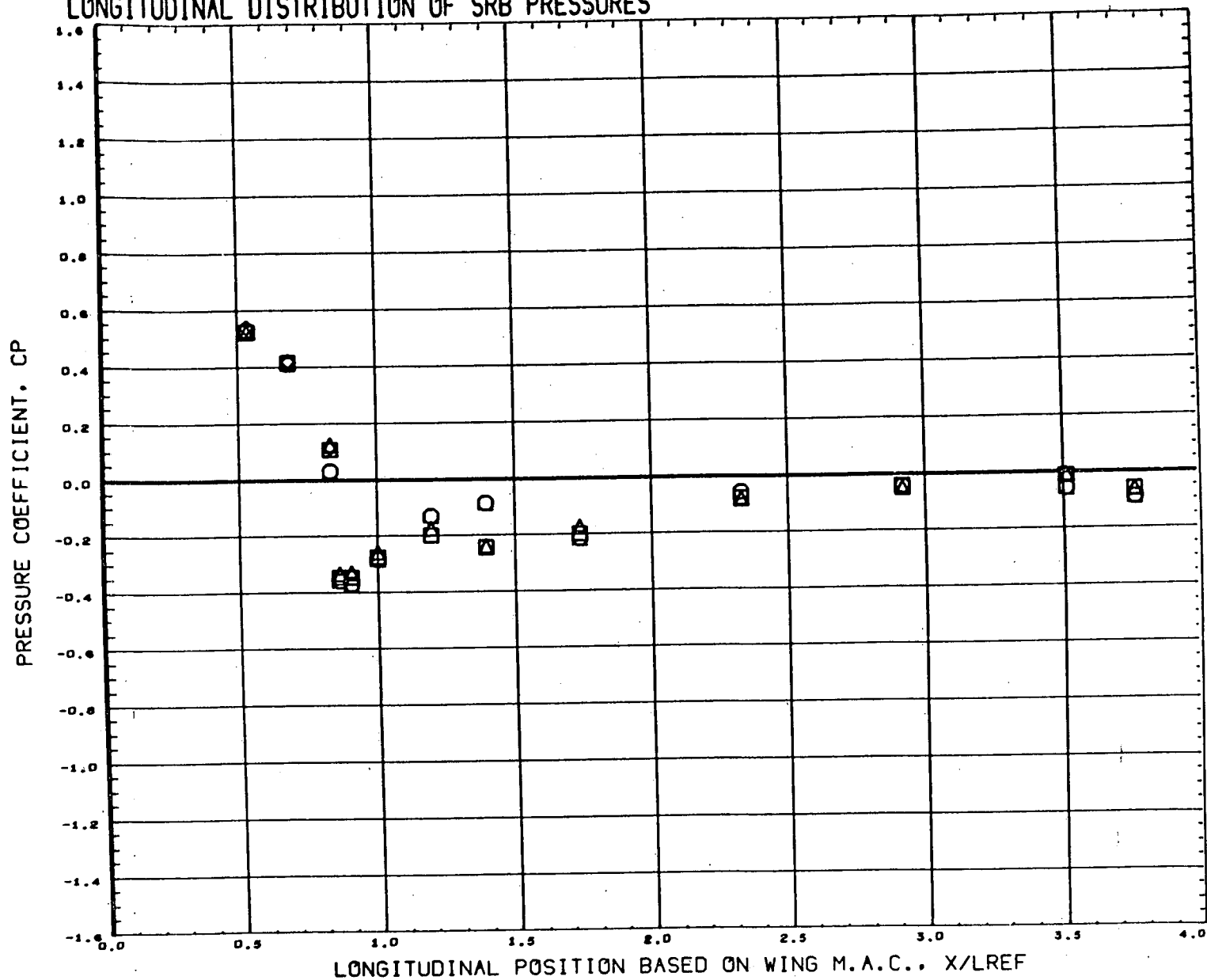
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	15.000					
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



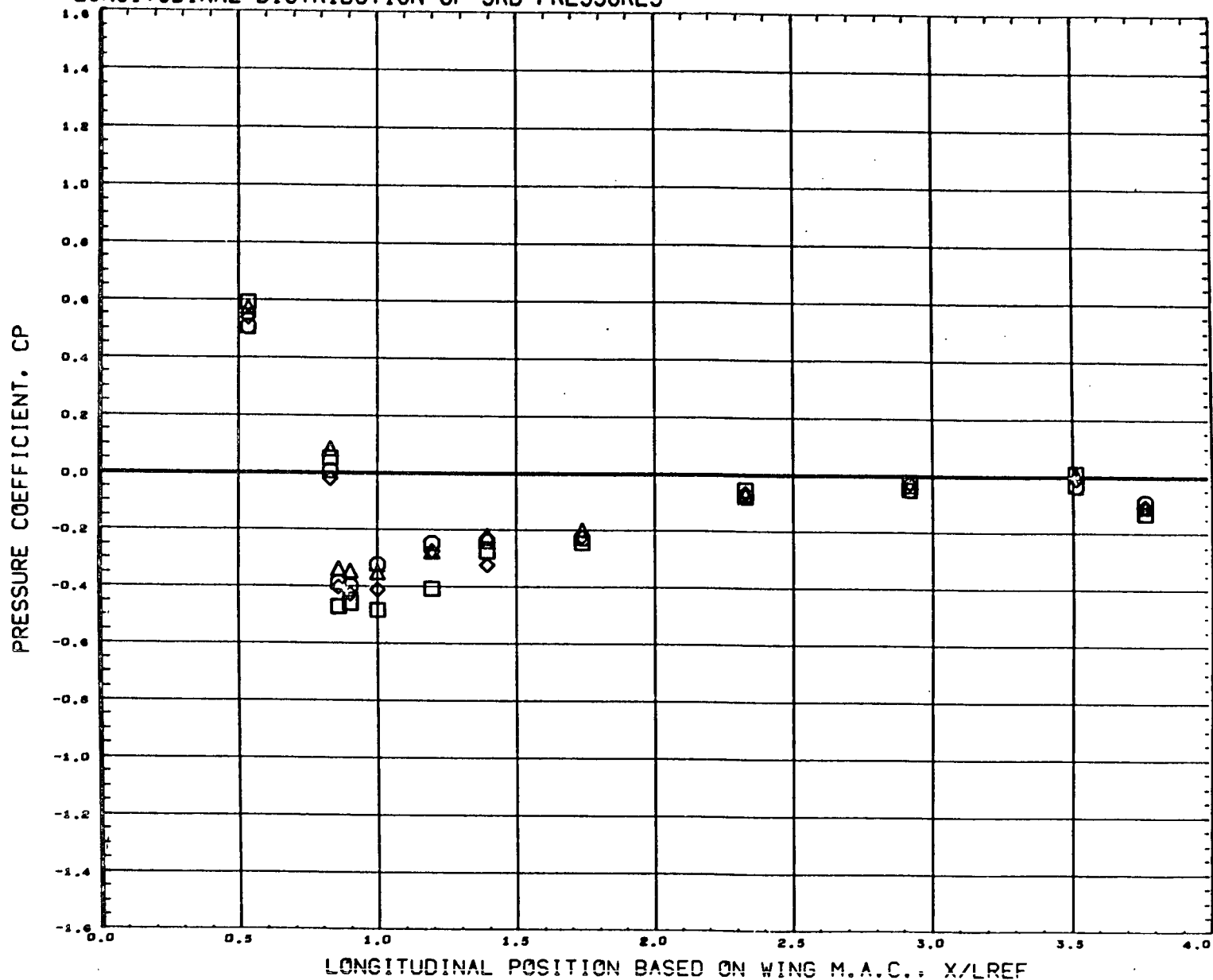
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	60.000	0.000	1.200	0.000	SRBGAP	0.025
△	75.000					
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 299

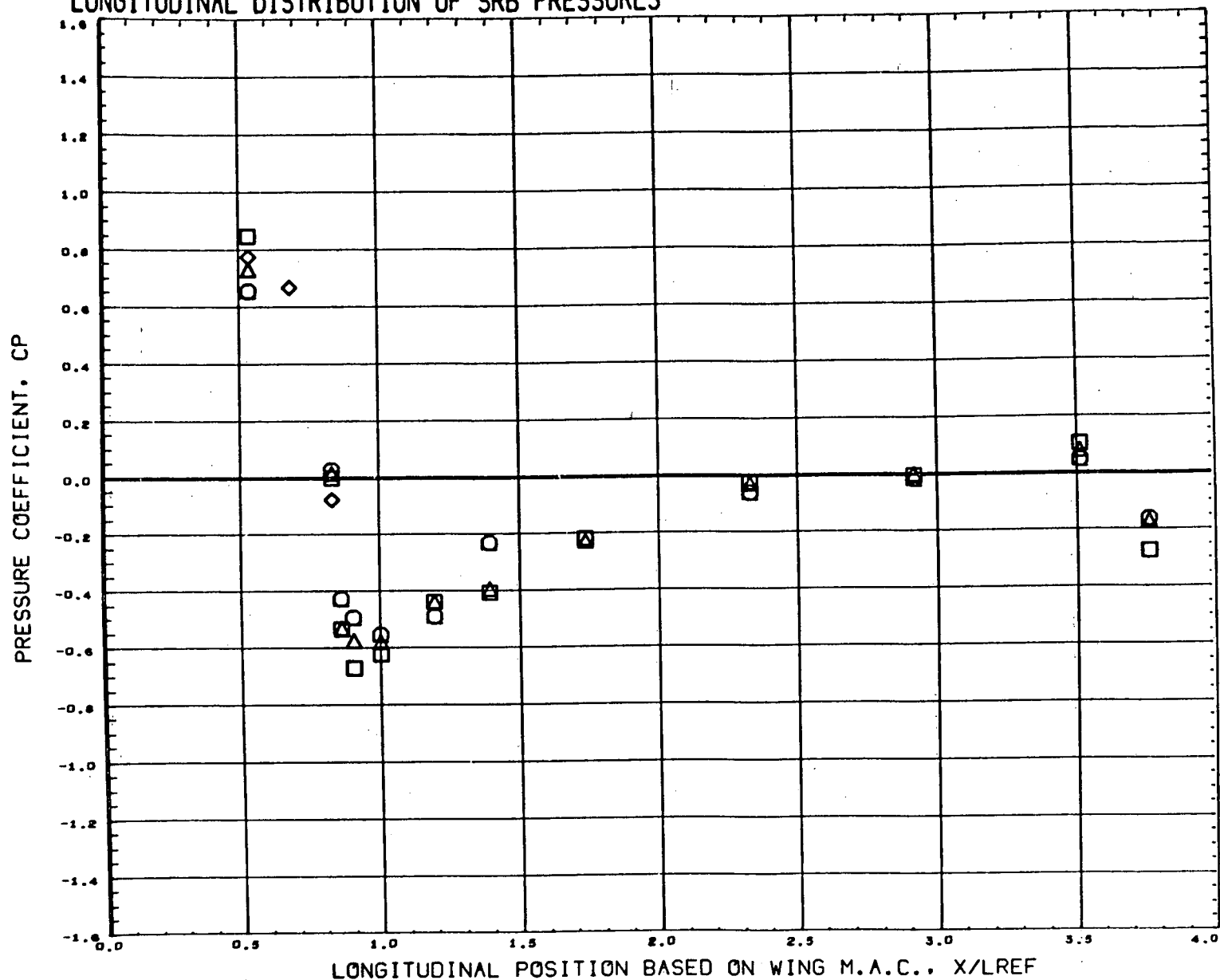
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	135.000					
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

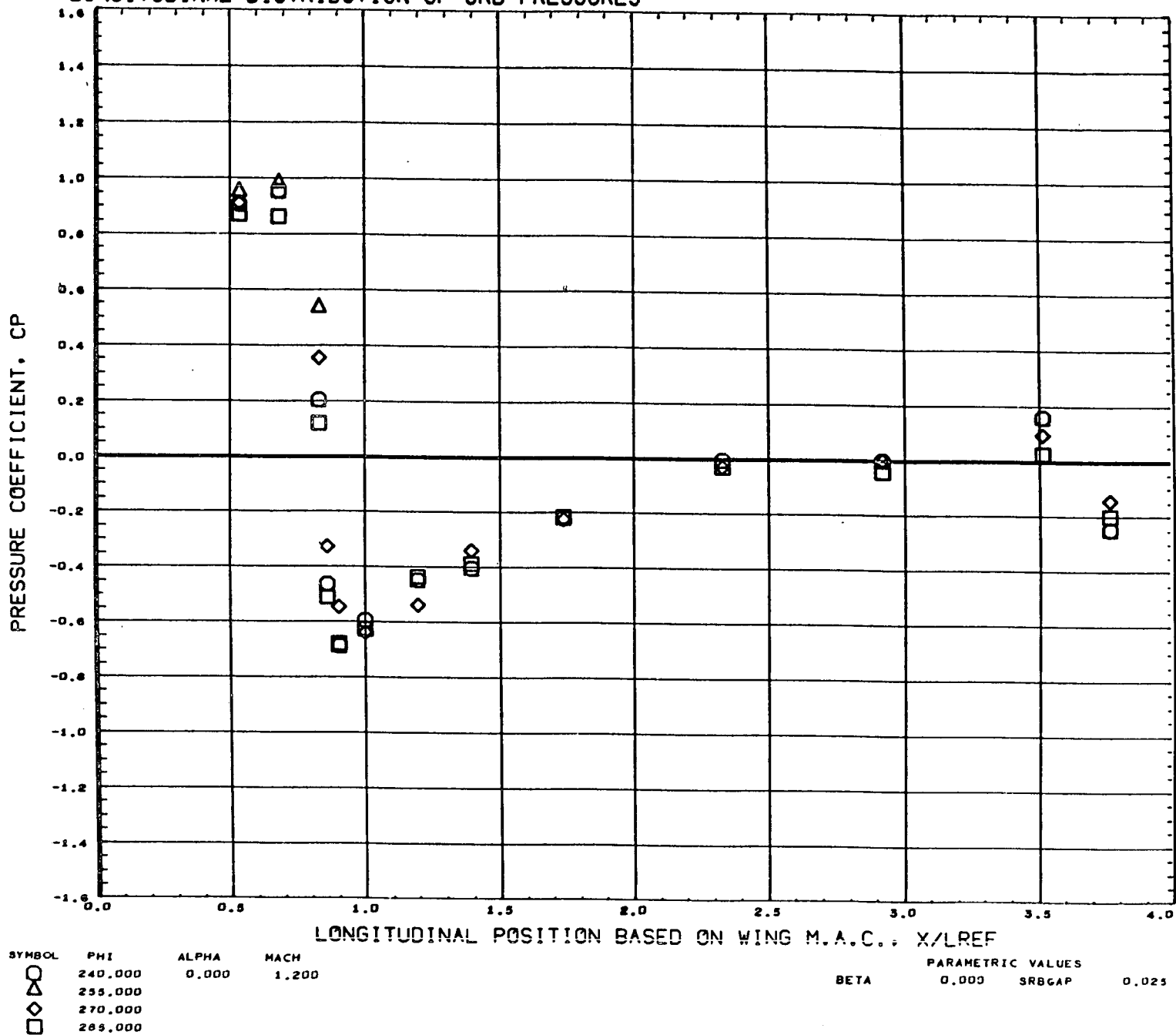
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	180.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	195.000					
◇	210.000					
□	225.000					

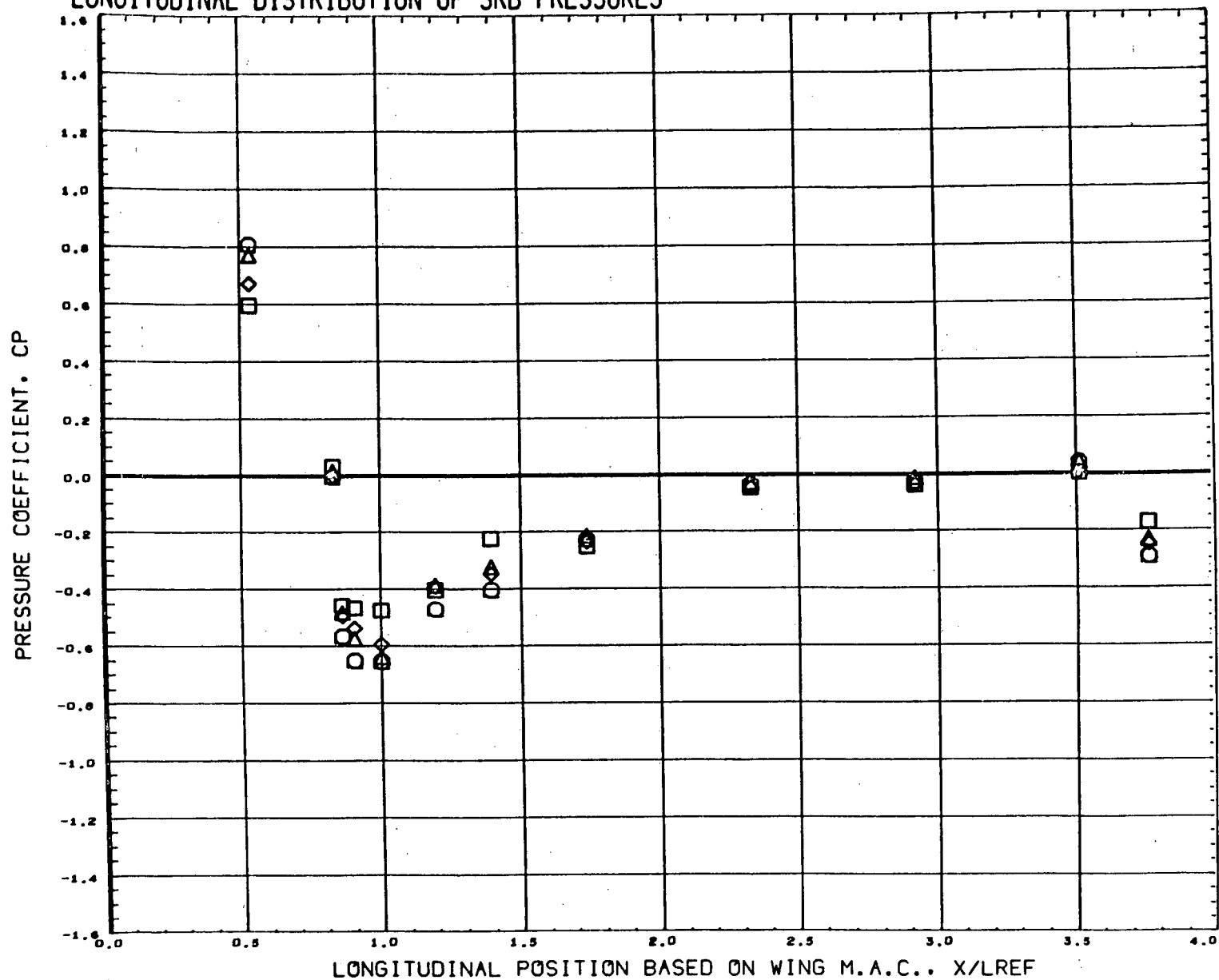
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

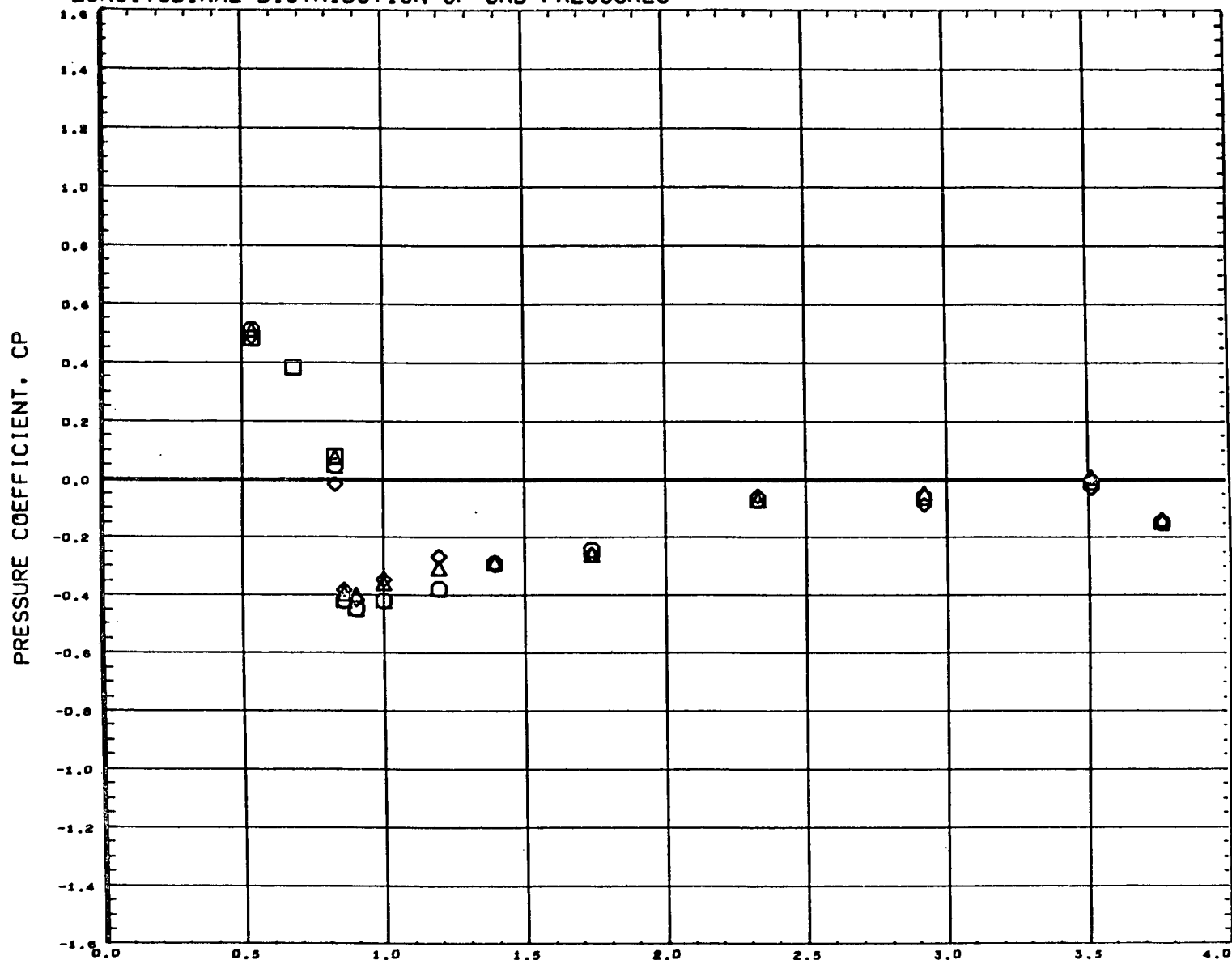
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300.000	0.000	1.200	BETA	0.000	SRBGAP 0.025
△	315.000					
◇	330.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

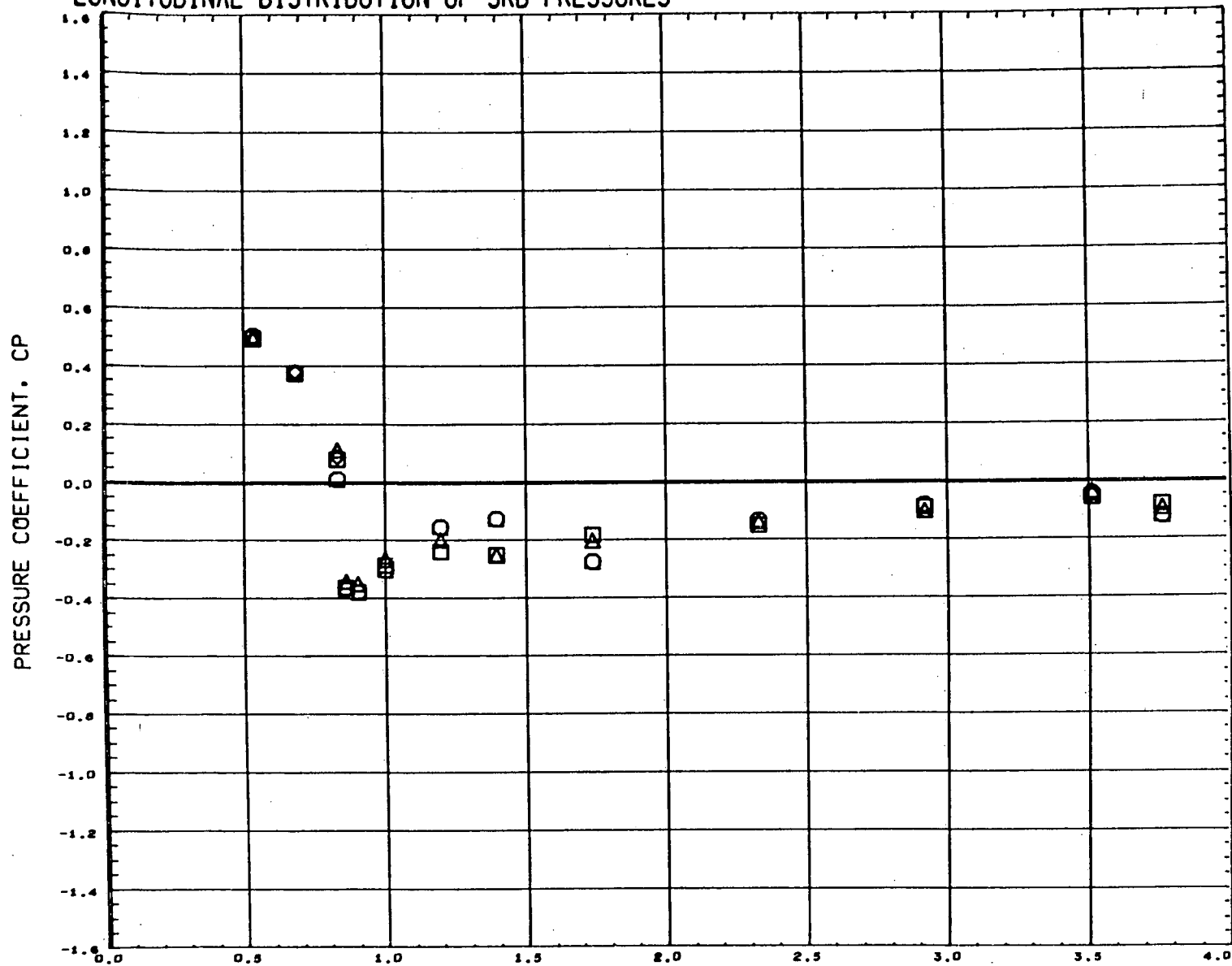
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	1.200	BETA	0.000	SRBGAP 0.025
△	15.000					
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

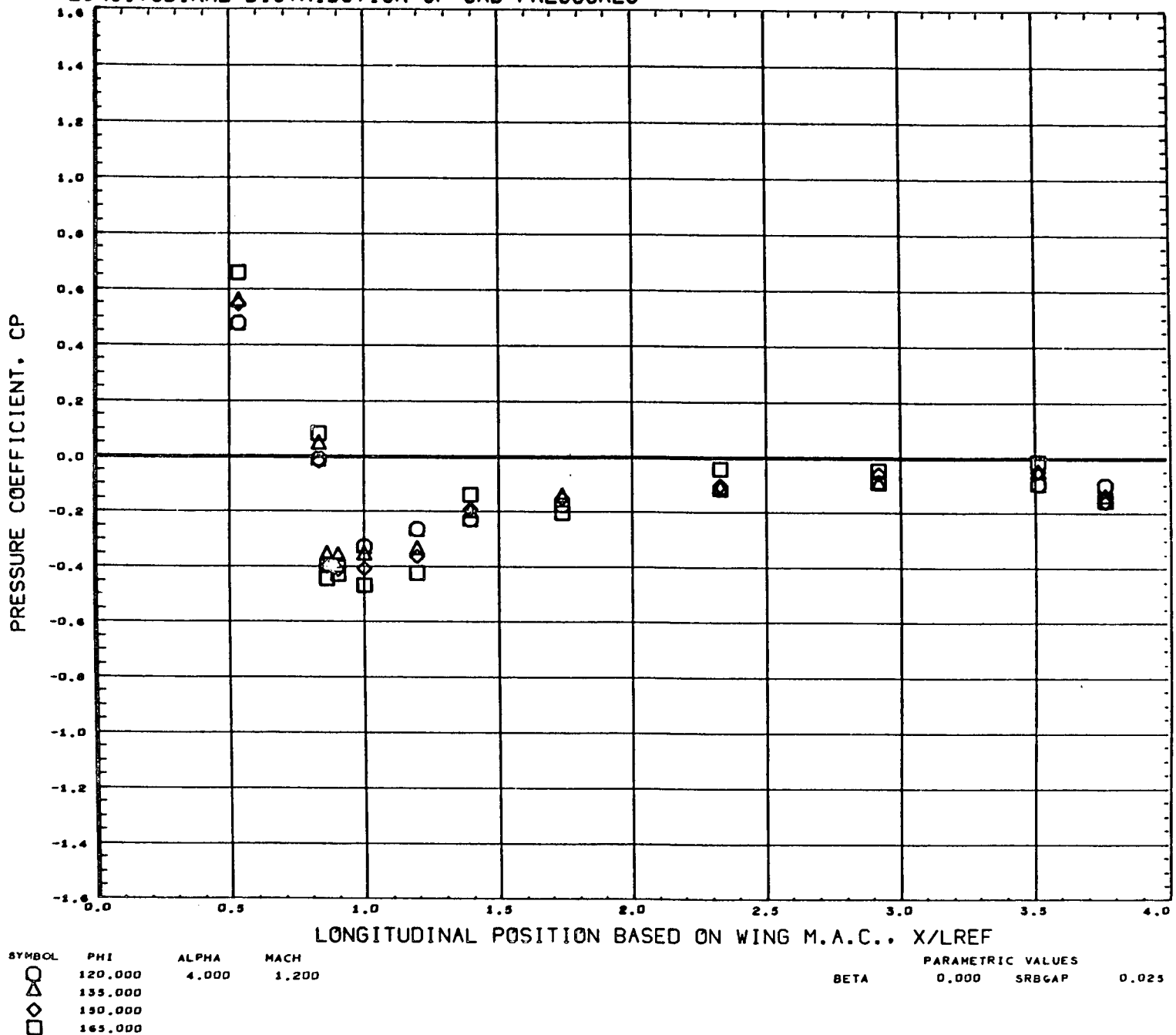


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	SRBGAP	0.025
○	60.000	4.000	1.200				
△	75.000						
◇	90.000						
□	105.000						

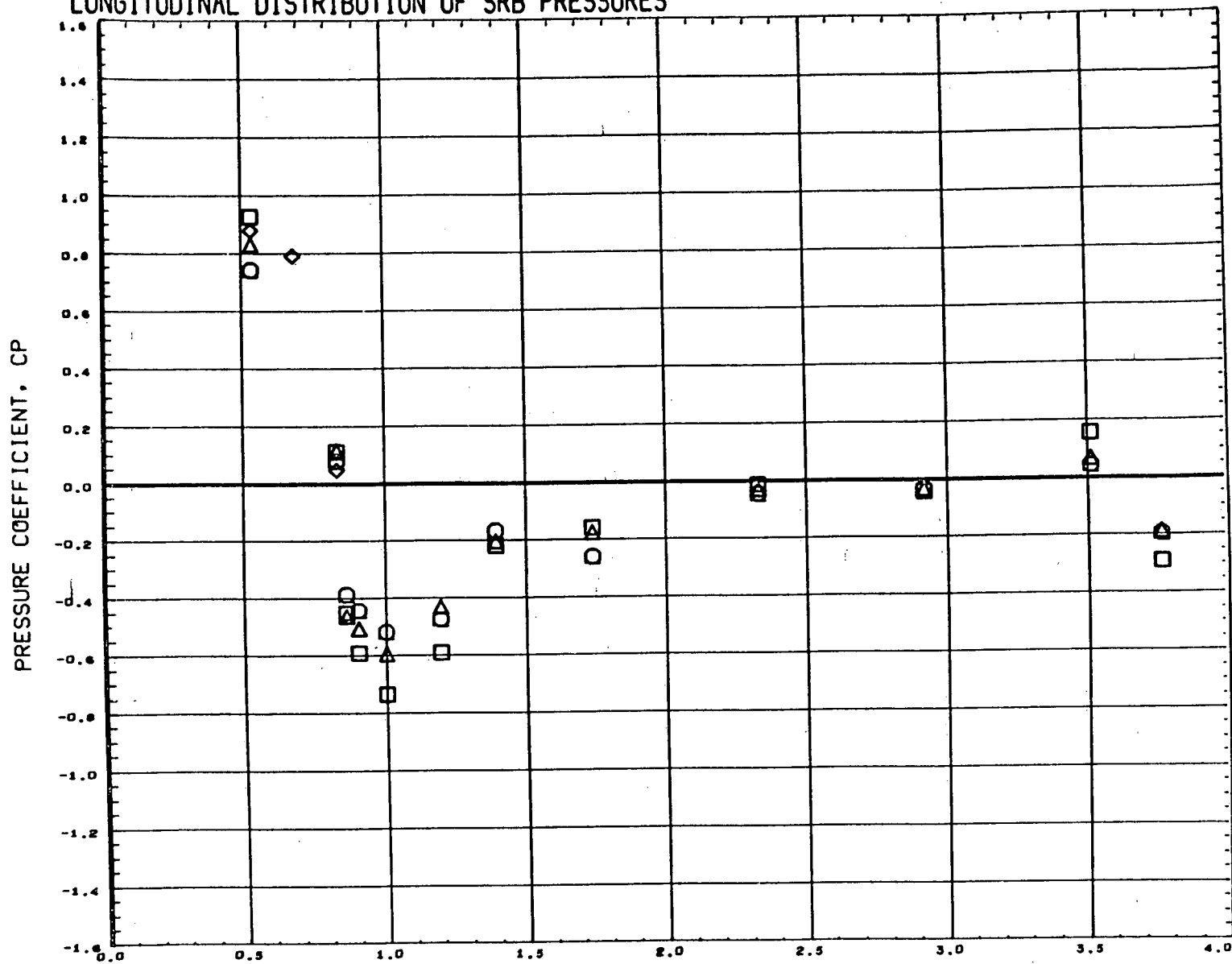
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	180.000	4.000	1.200
△	195.000		
◇	210.000		
□	225.000		

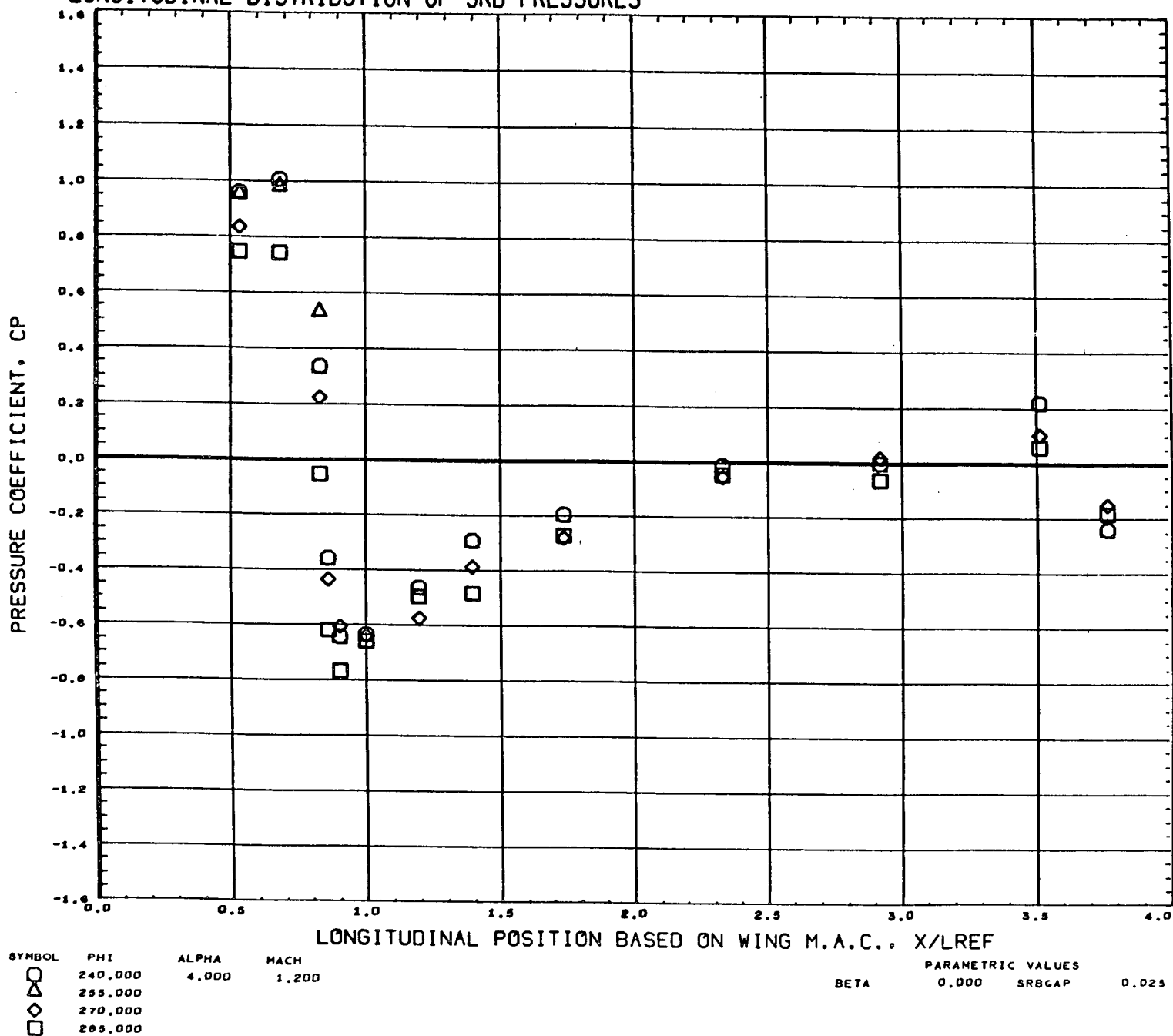
PARAMETRIC VALUES		
BETA	0.000	SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 307

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

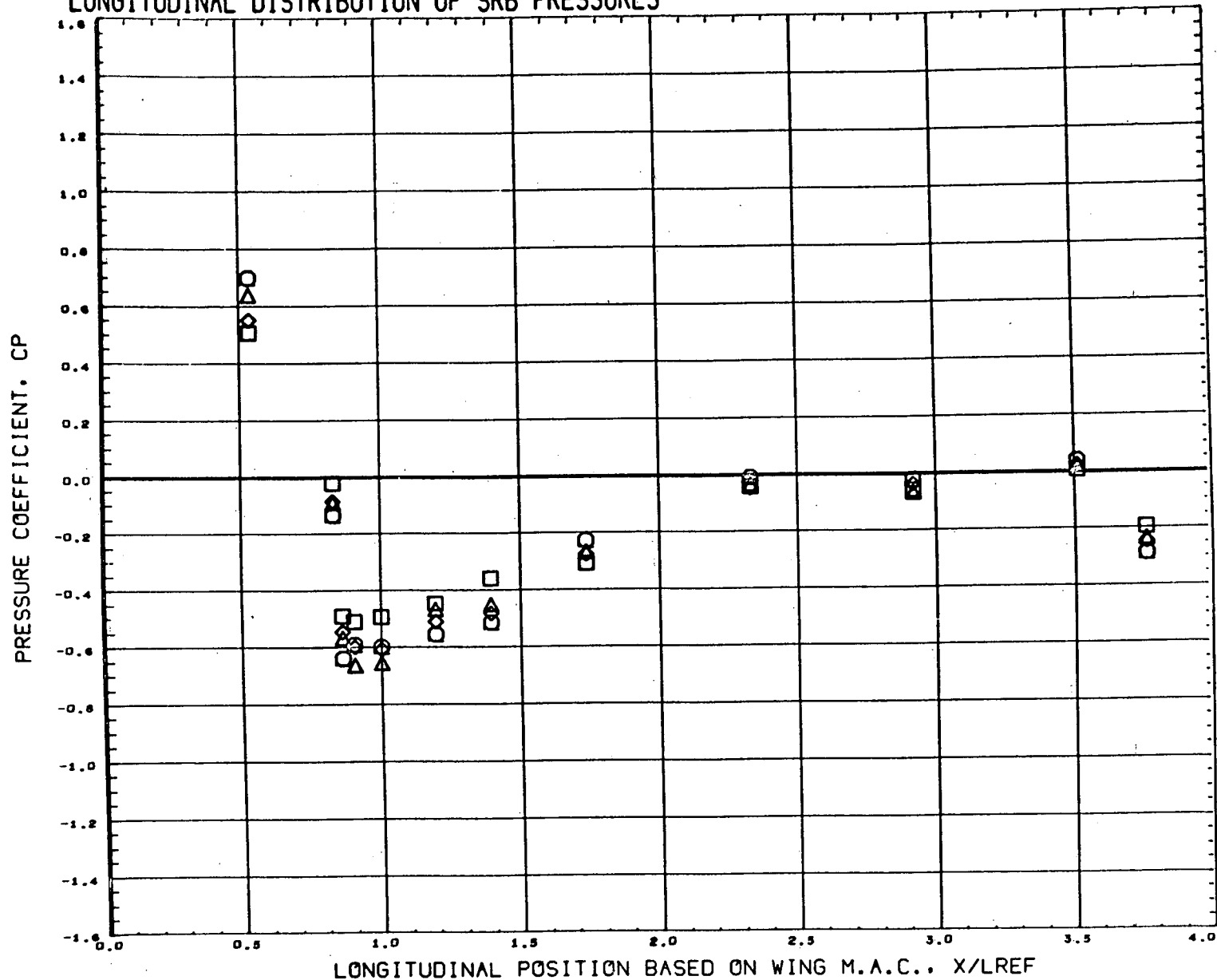


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 308

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



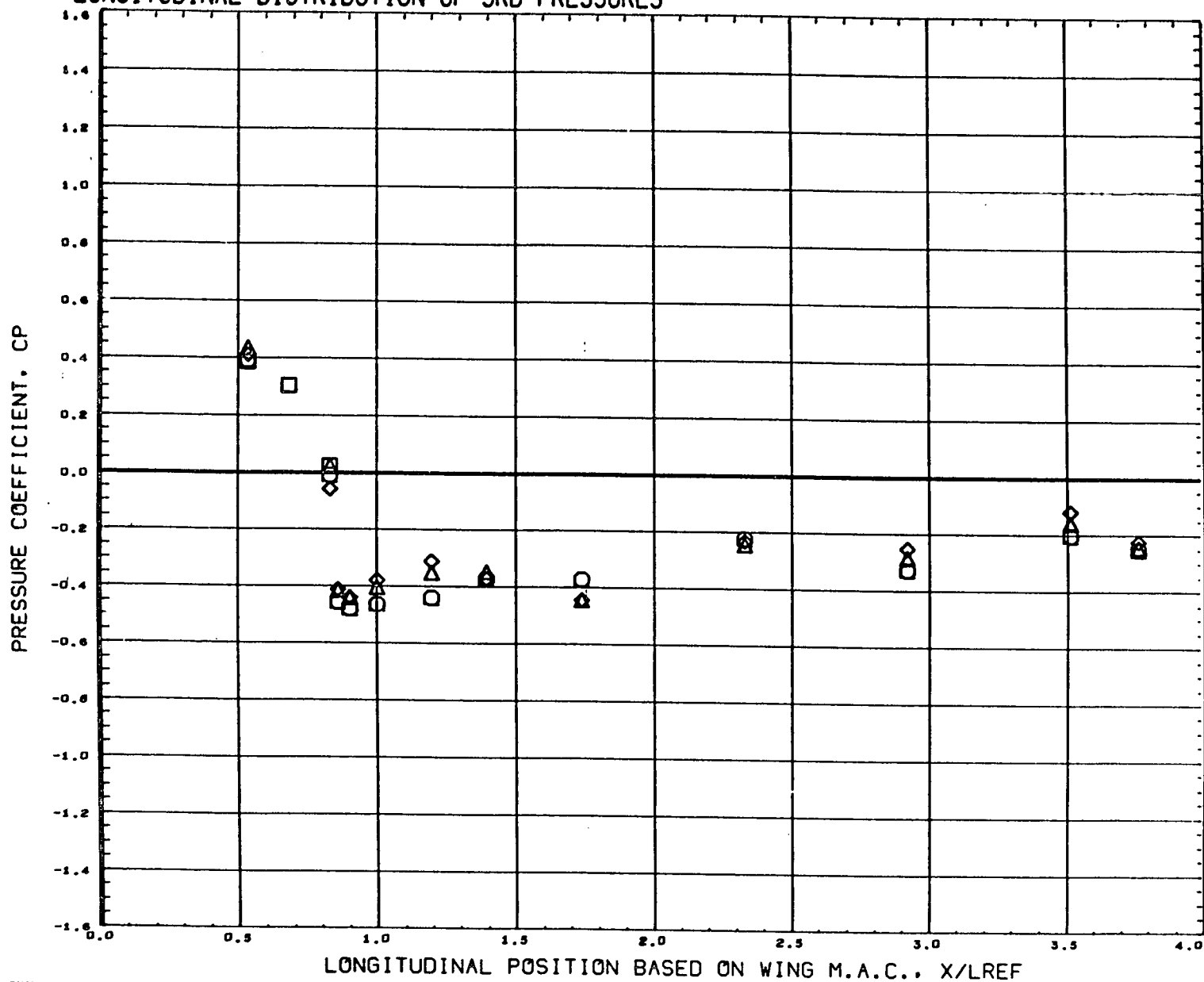
SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	SRBGAP	0.025
○	300,000	4.000	1.200				
△	315,000						
◇	330,000						
□	345,000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 309

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	1.200	BETA	0.000	SRBGAP 0.025
△	15.000					
◇	30.000					
□	45.000					

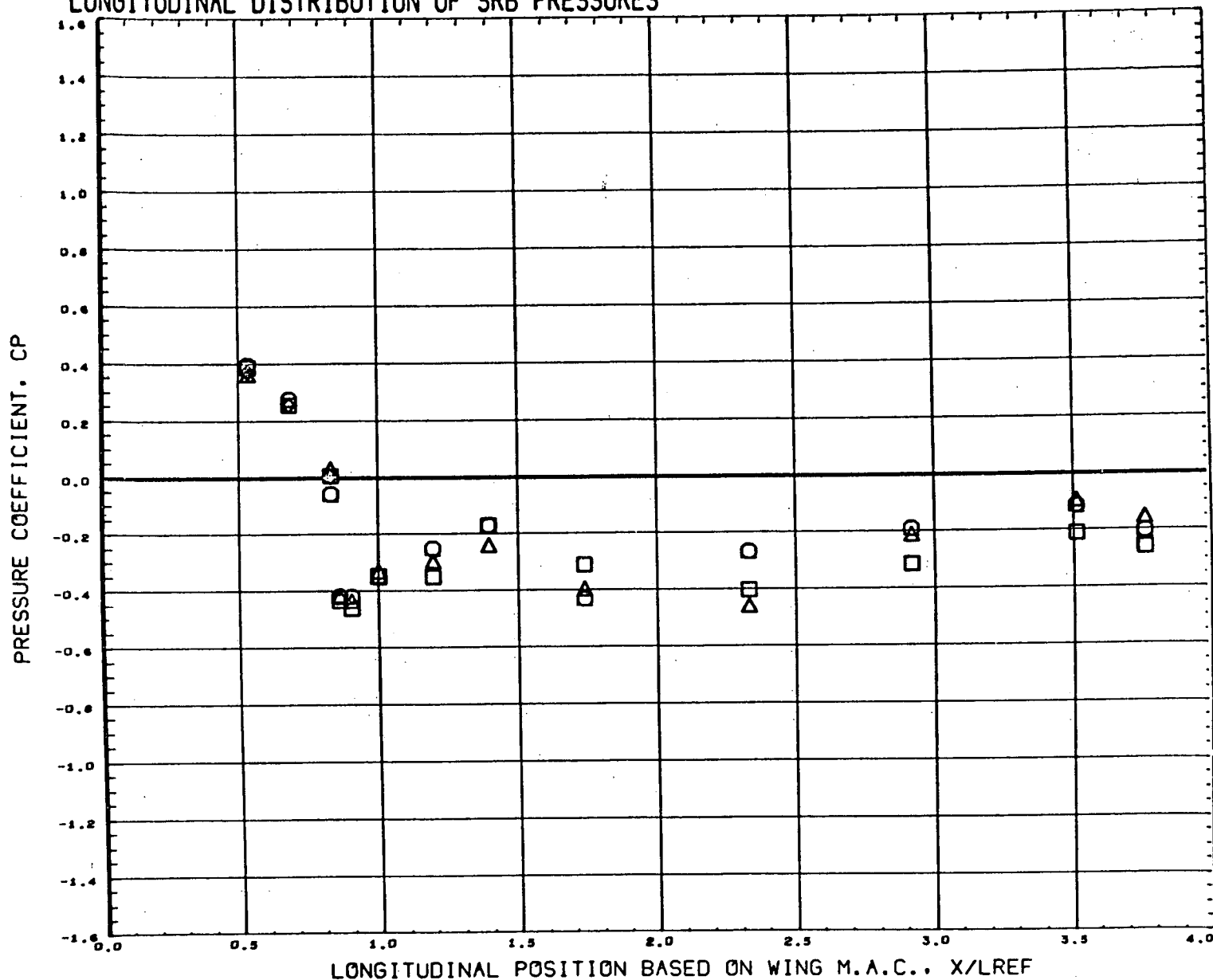
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 310

6

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



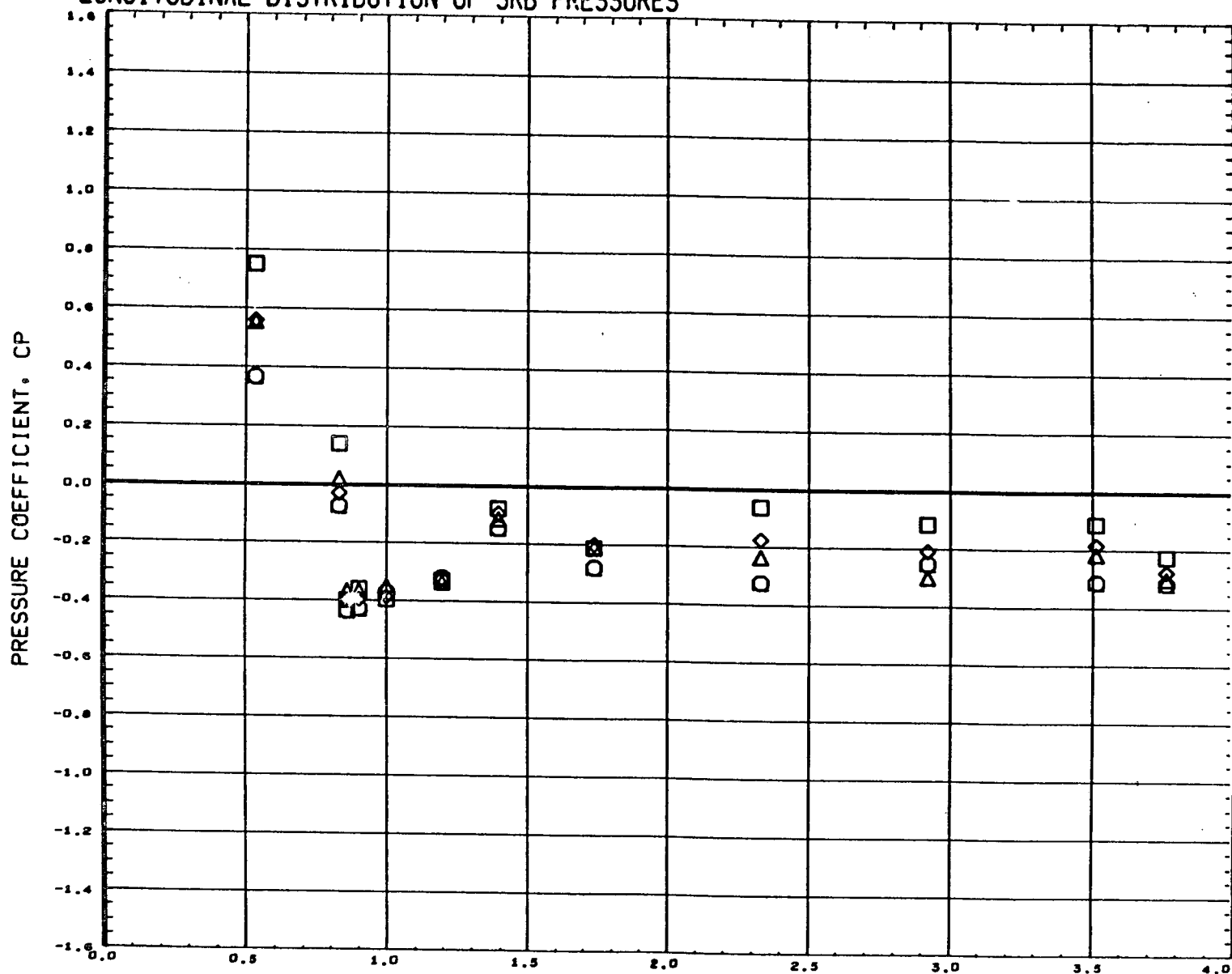
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60,000	10,000	1,200	BETA	0,000	SRBGAP 0,025
△	75,000					
◇	90,000					
□	105,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 311

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



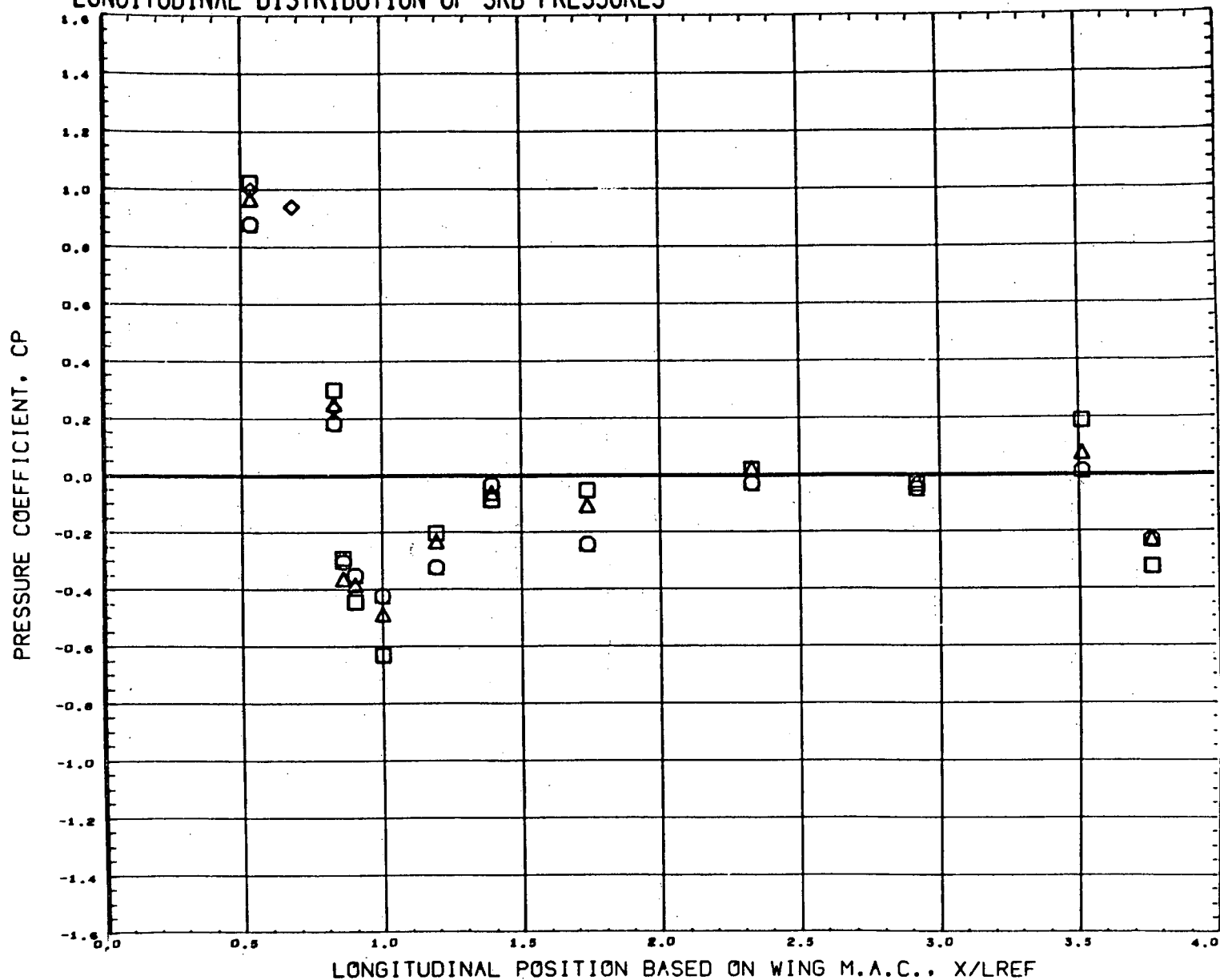
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	10.000	1.200	BETA	0.000	SRBGAP 0.025
△	135.000					
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 312

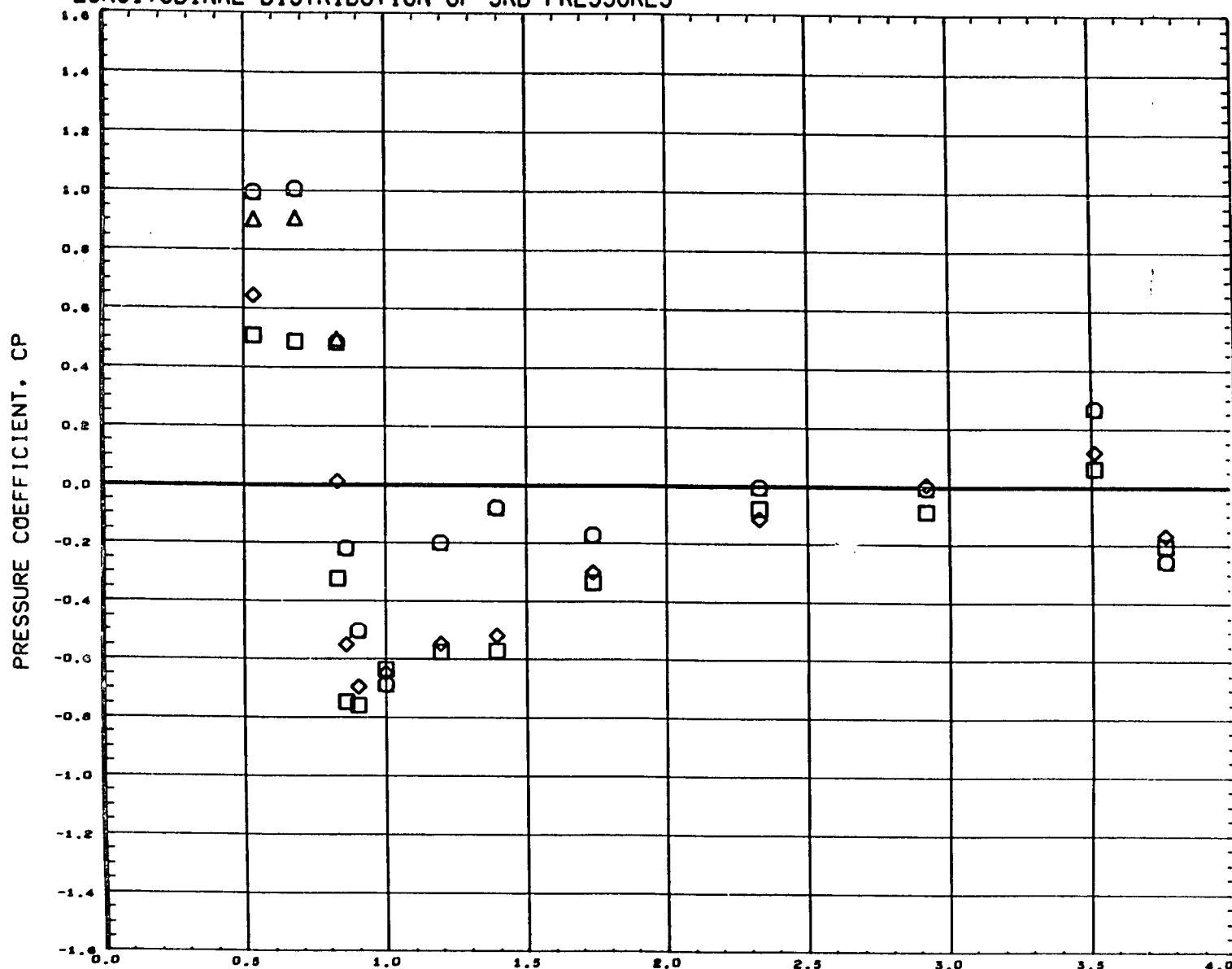
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	180,000	10.000	1.200	0.000	SRBGAP	0.025
△	195,000					
◇	210,000					
□	225,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

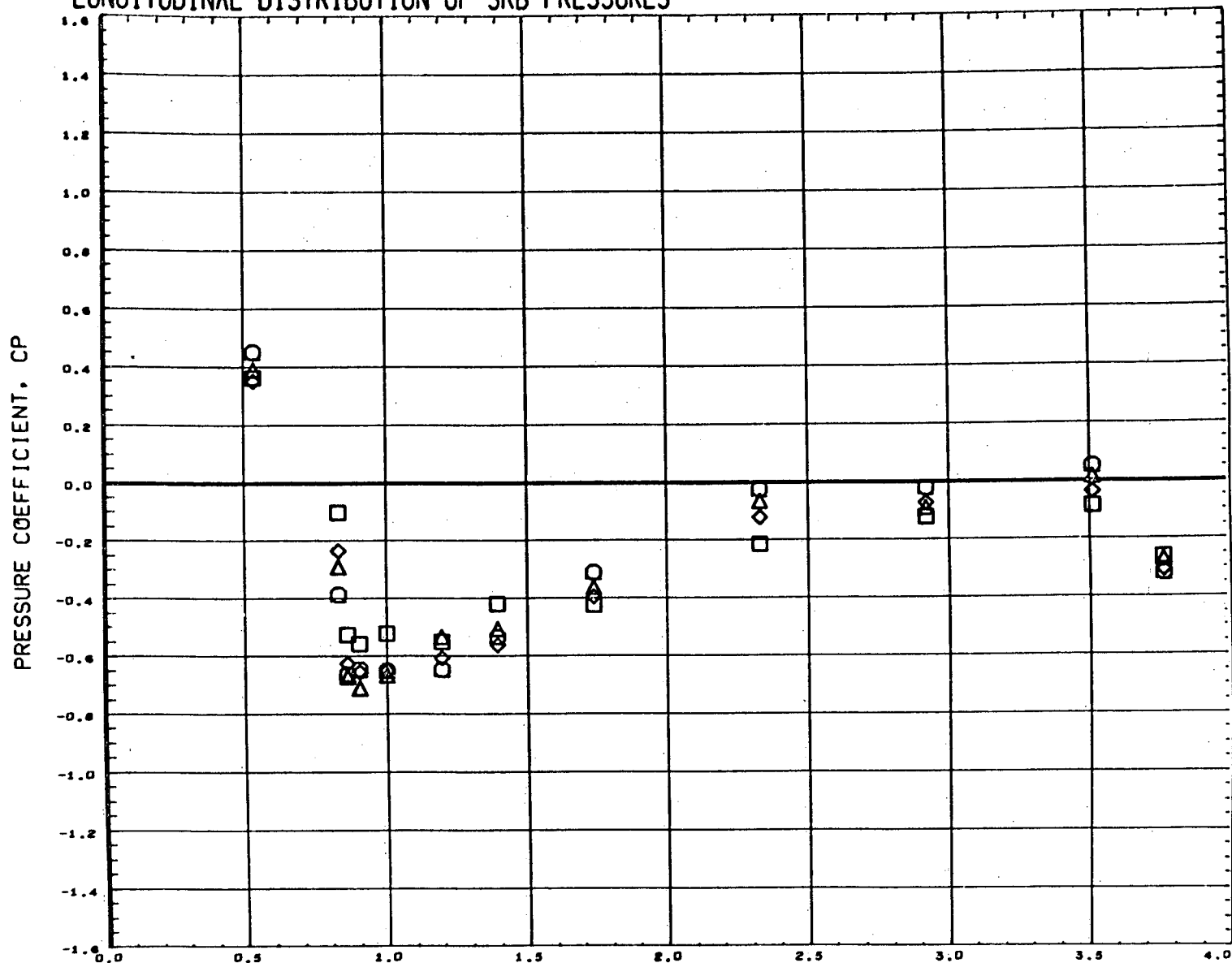


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	10.000	1.200	BETA	0.000	SRBGAP 0.025
△	255.000					
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

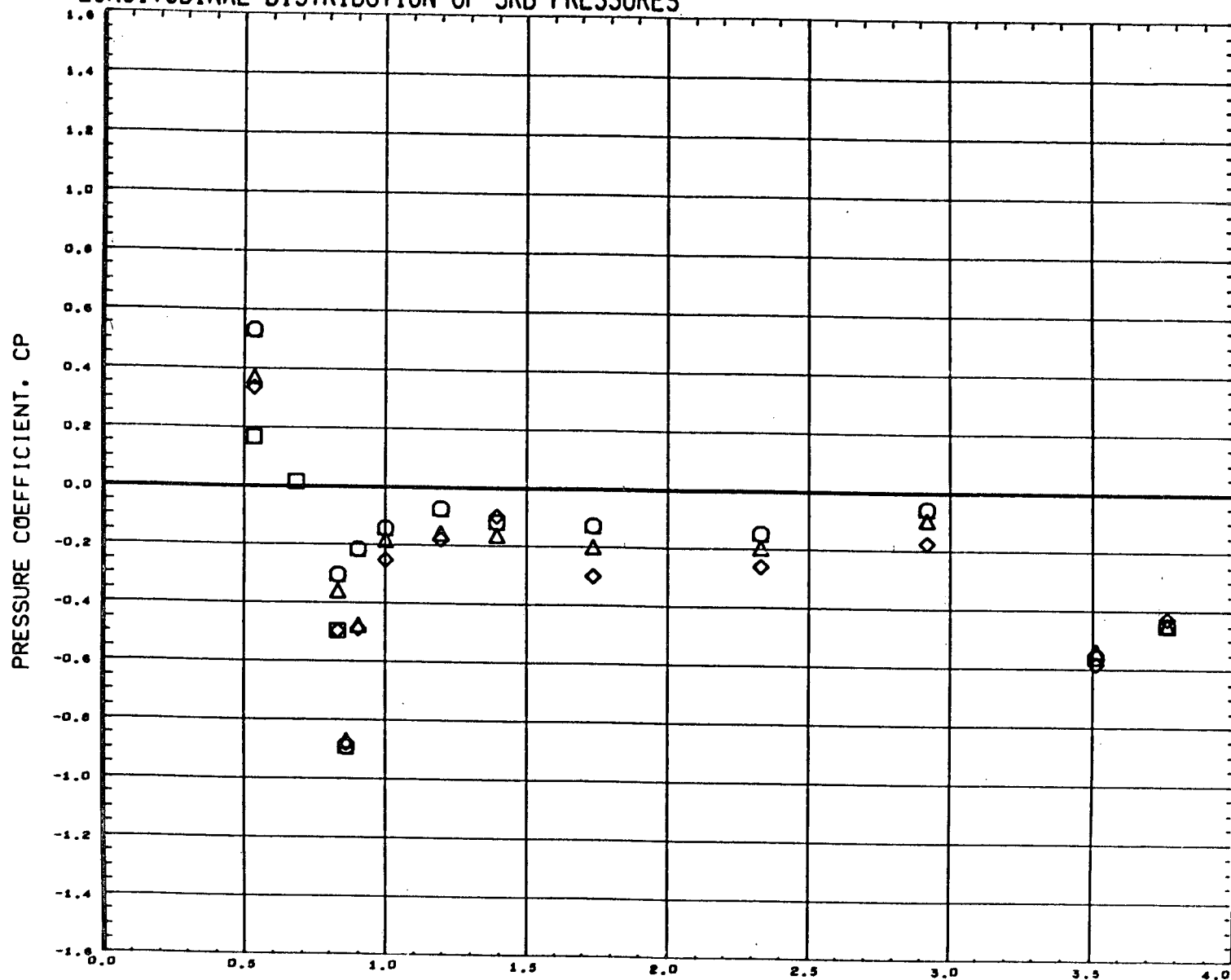
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300,000	10,000	1,200	BETA	0,000	SRBGAP 0,025
△	315,000					
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	- 10.000	0.800
△	15.000		
◇	30.000		
□	45.000		

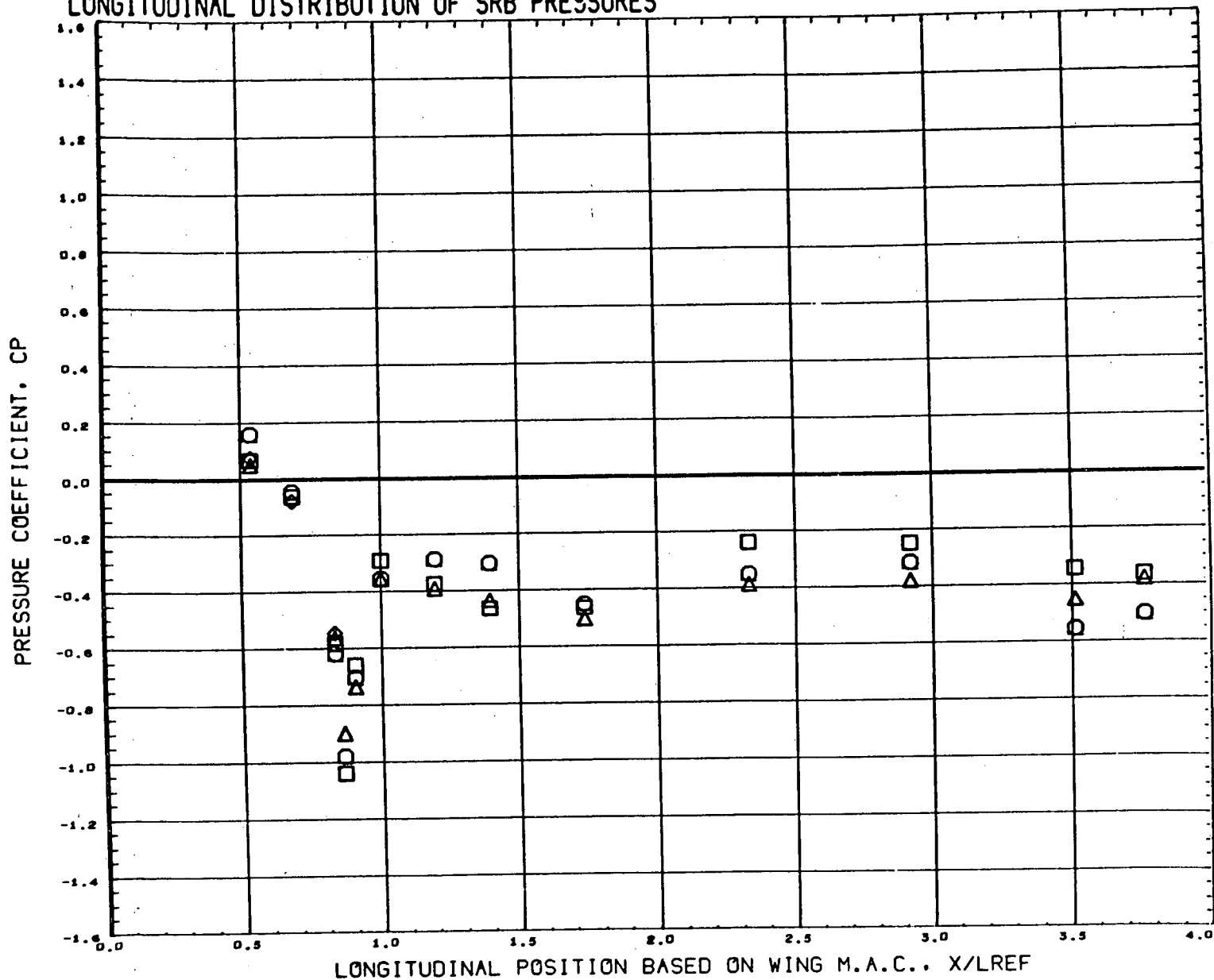
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 316

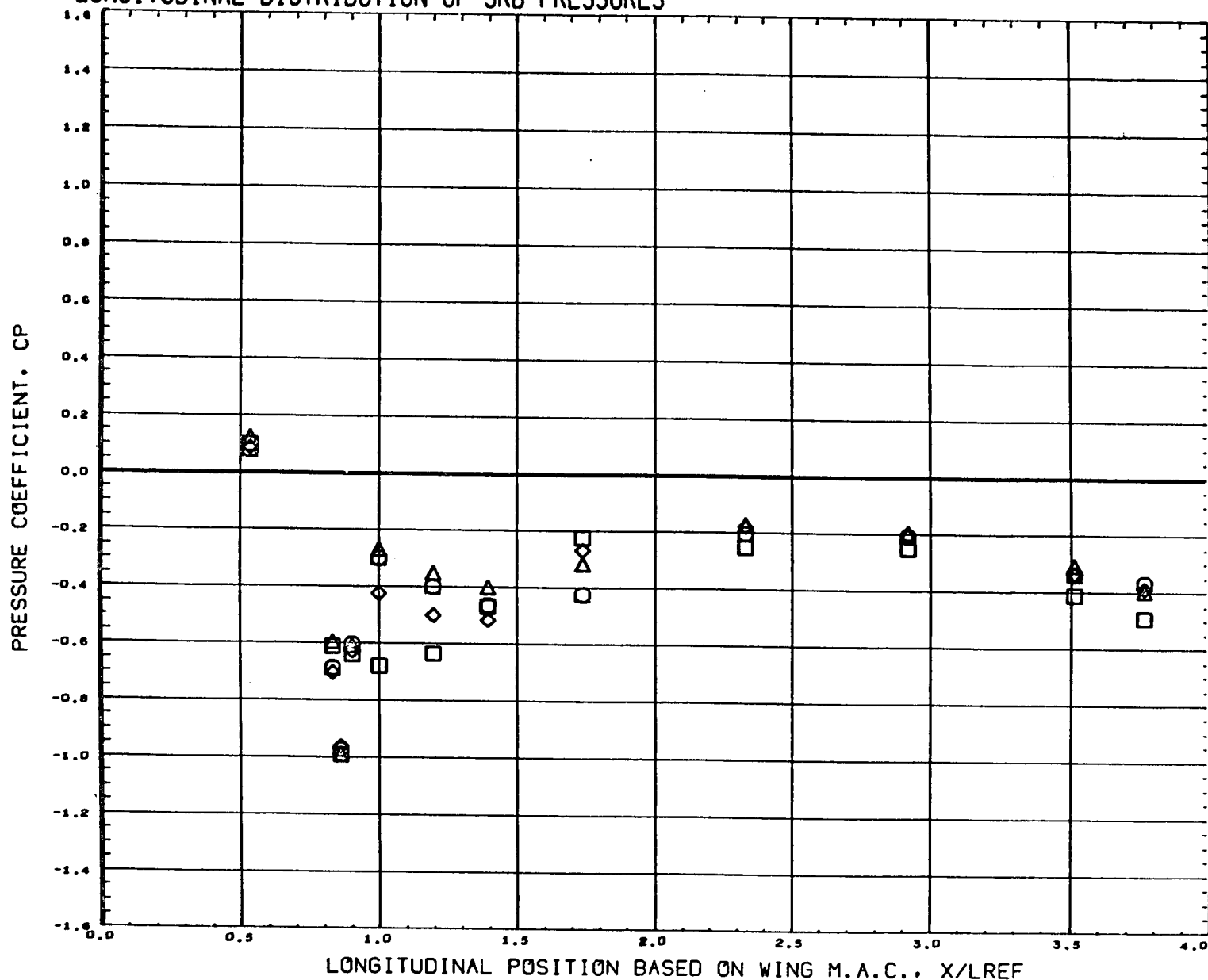
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC
○	60.000	10.000	0.800	0.000	0.025		1.500
△	75.000						
◇	90.000						
□	105.000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

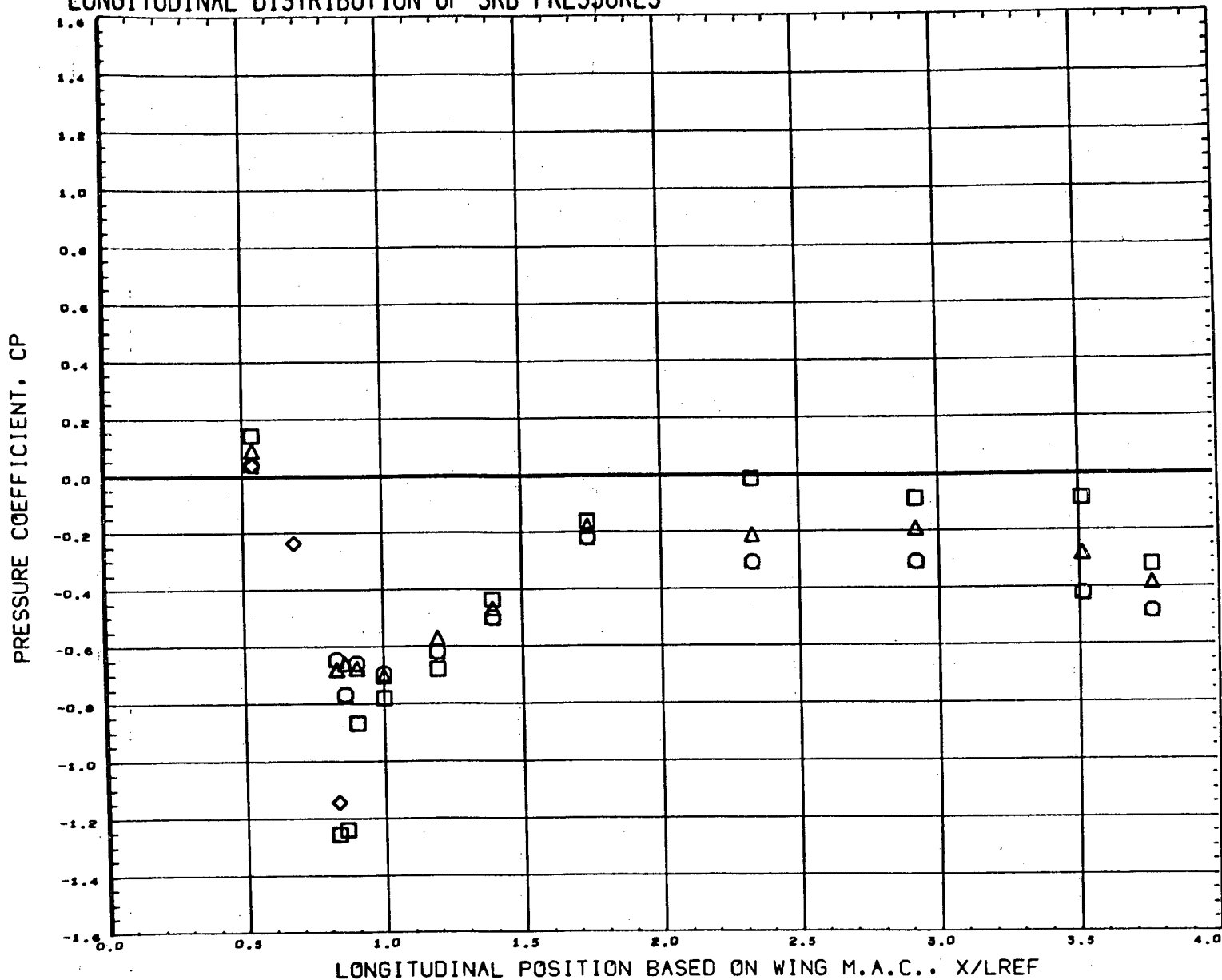
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120,000	- 10,000	0.800	BETA	0.000 ORBINC - 1.500
△	135,000			SRBGAP	0.025
◇	150,000				
□	165,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

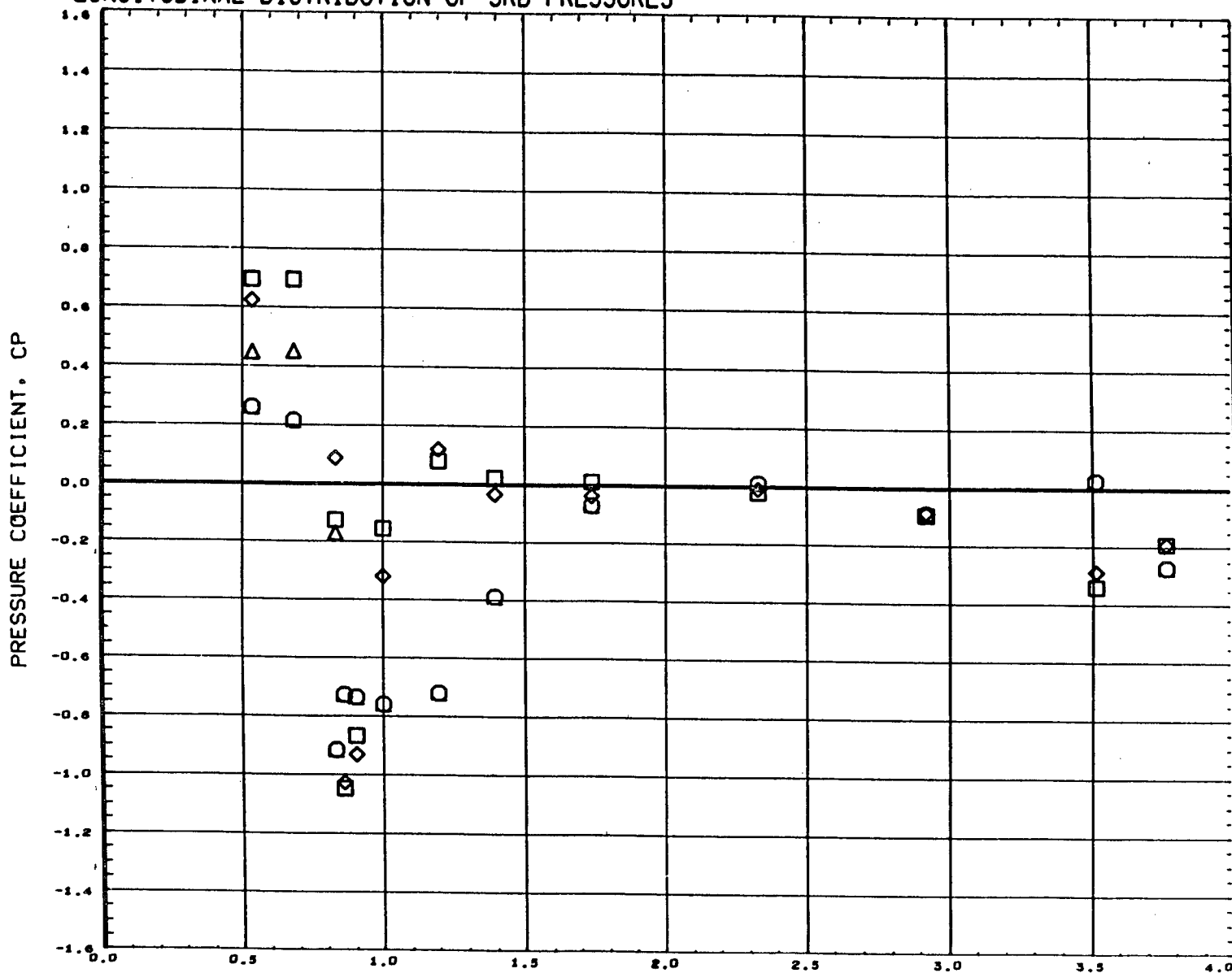
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORGINC	
○	180.000	- 10.000	0.800	0.000	0.025		- 1.500	
△	195.000							
◇	210.000							
□	225.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

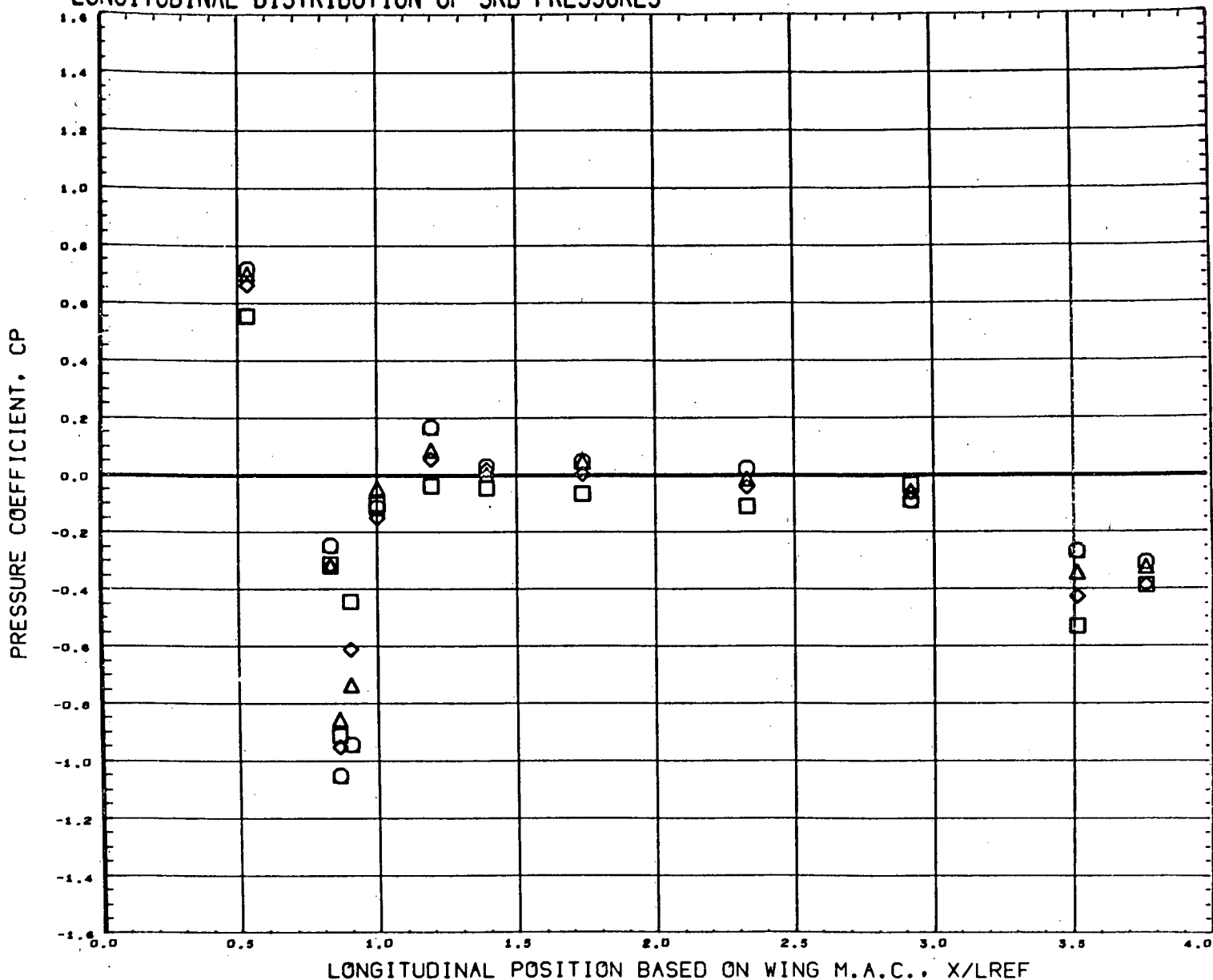
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	240,000	- 10,000	0,800	0,000	0,025	ORBINC - 1,500
△	255,000					
◇	270,000					
□	285,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

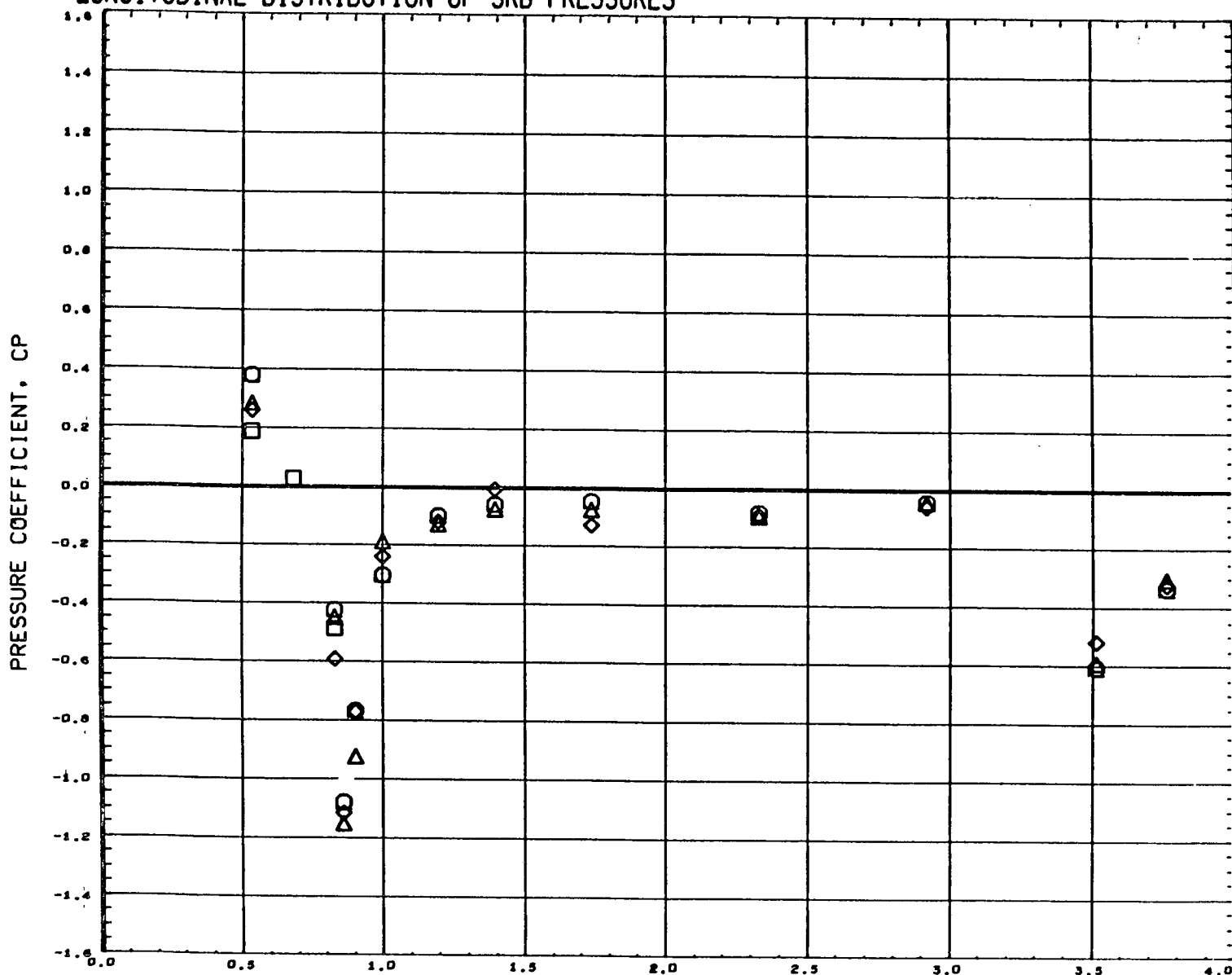
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300.000	- 10.000	0.800	BETA	0.000	ORBINC - 1.500
△	315.000			SRBGAP	0.025	
◇	330.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

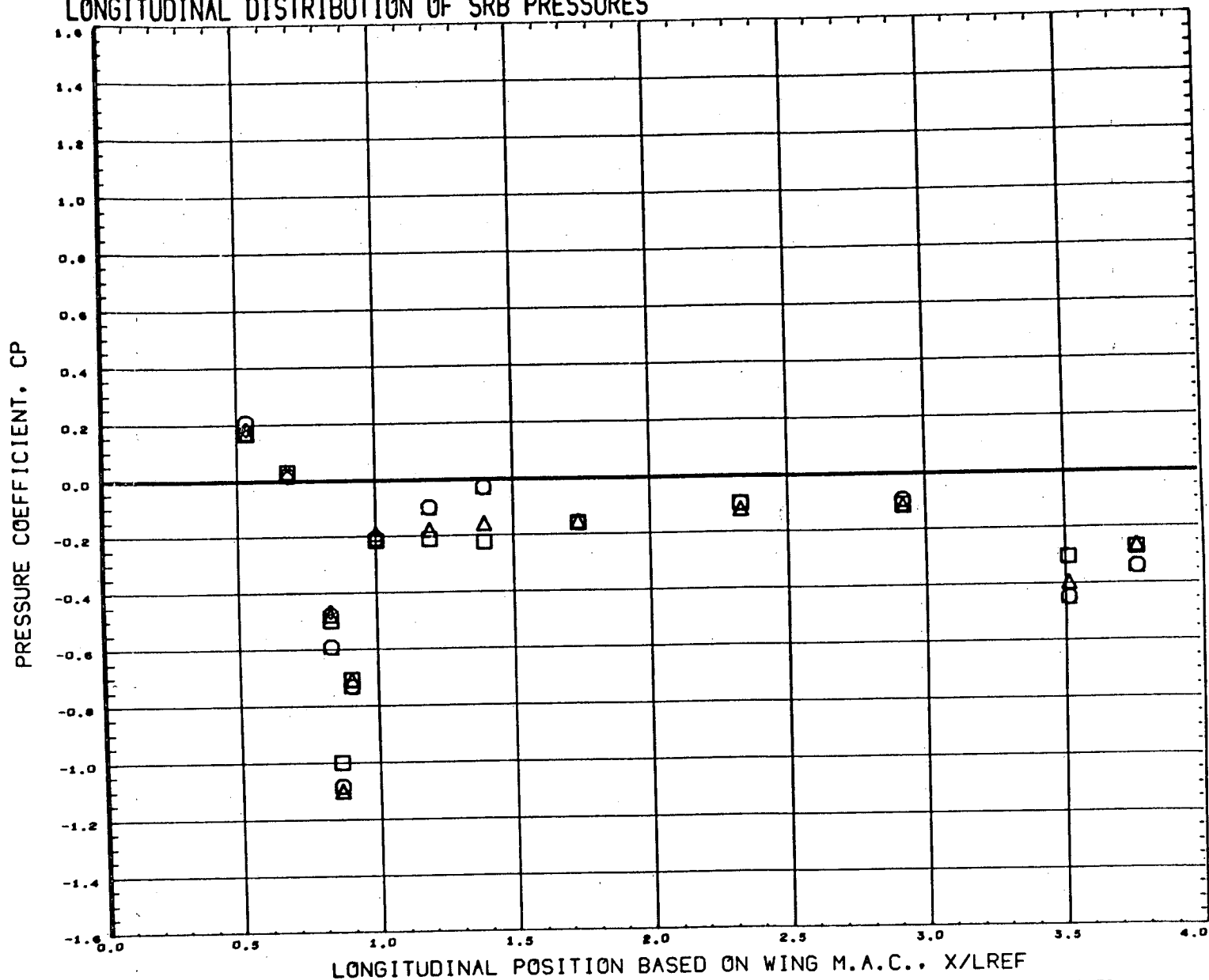


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	- 4.000	0.800	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL
 ○
 △
 ◇
 □

PHI	ALPHA	MACH
60.000	- 4.000	0.800
75.000		
90.000		
105.000		

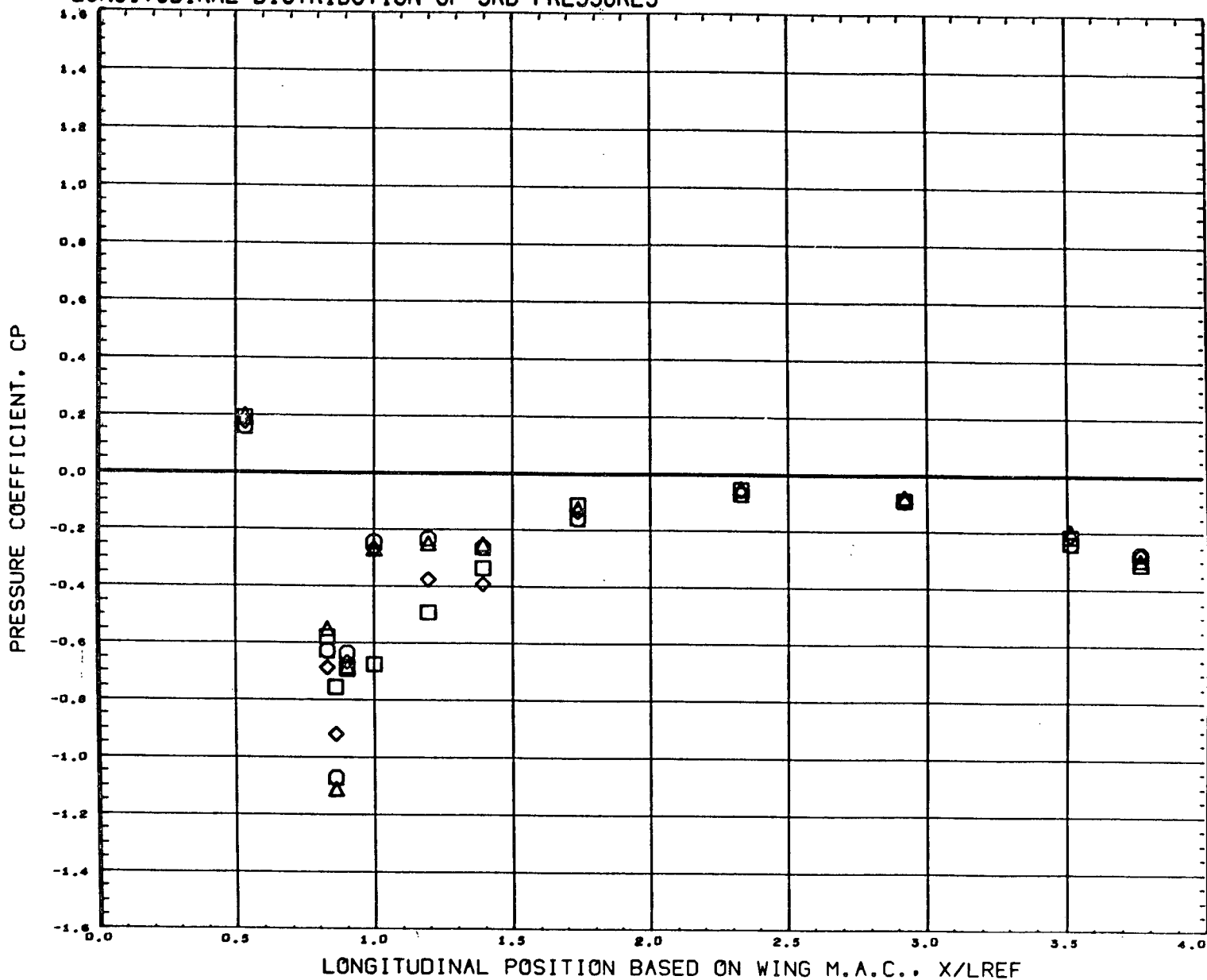
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 323

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

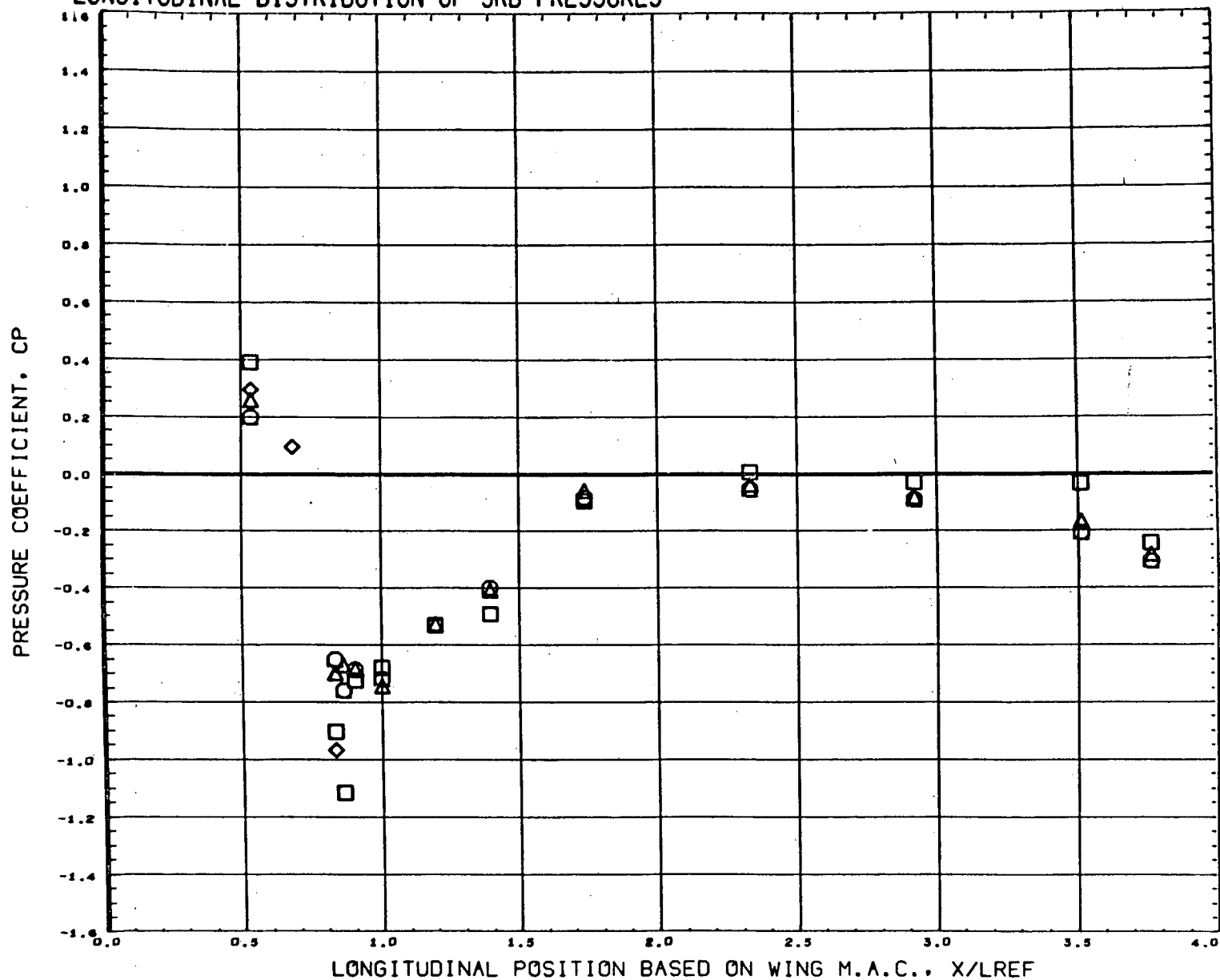


SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120.000	- 4.000	0.800	BETA	0.000 ORBINC - 1.500
△	135.000			SRBGAP	0.025
◇	150.000				
□	165.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

F

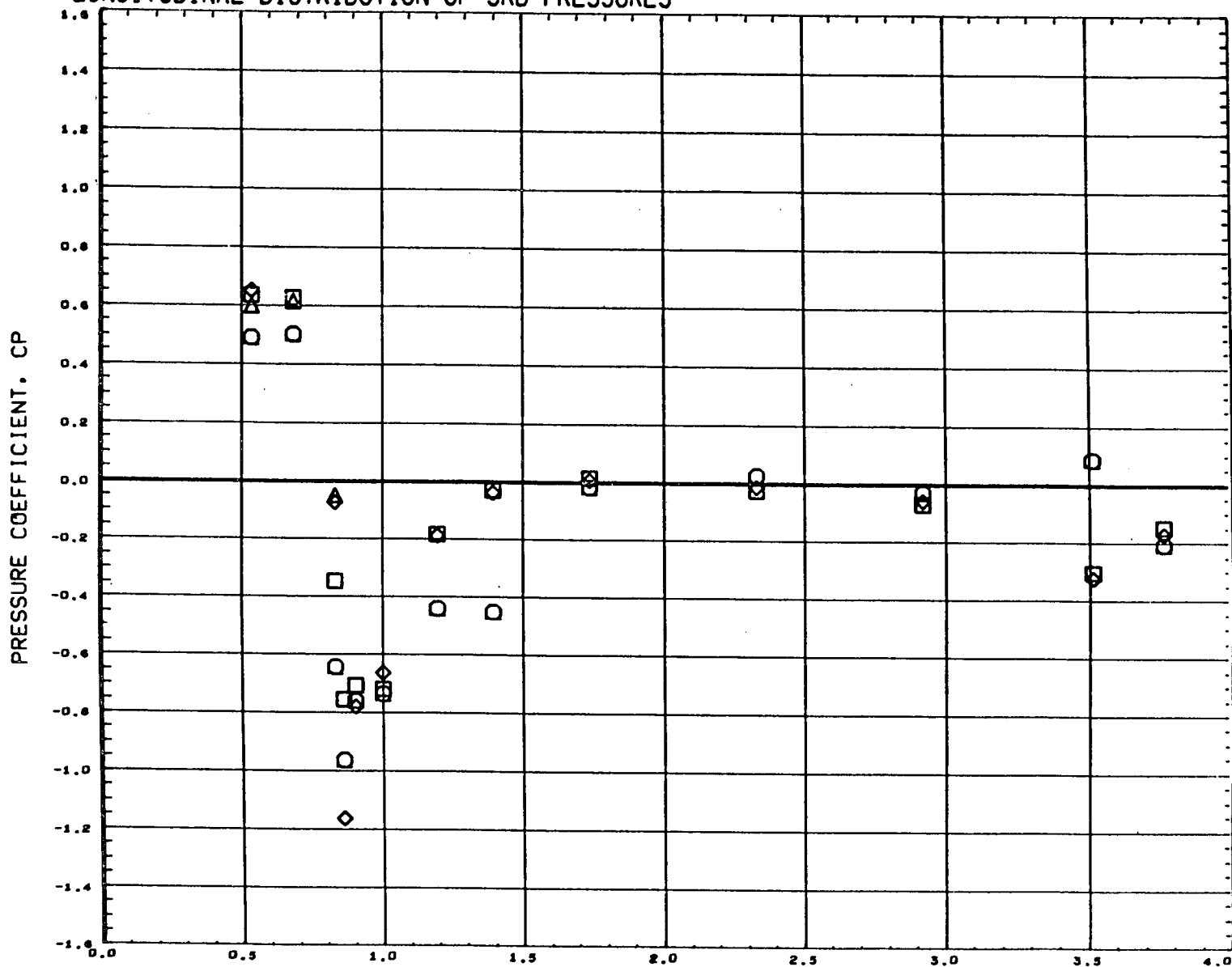
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	180.000	4.000	0.800	BETA	0.000
△	195.000			SRBGAP	0.025
◇	210.000			ORBINC	1.500
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

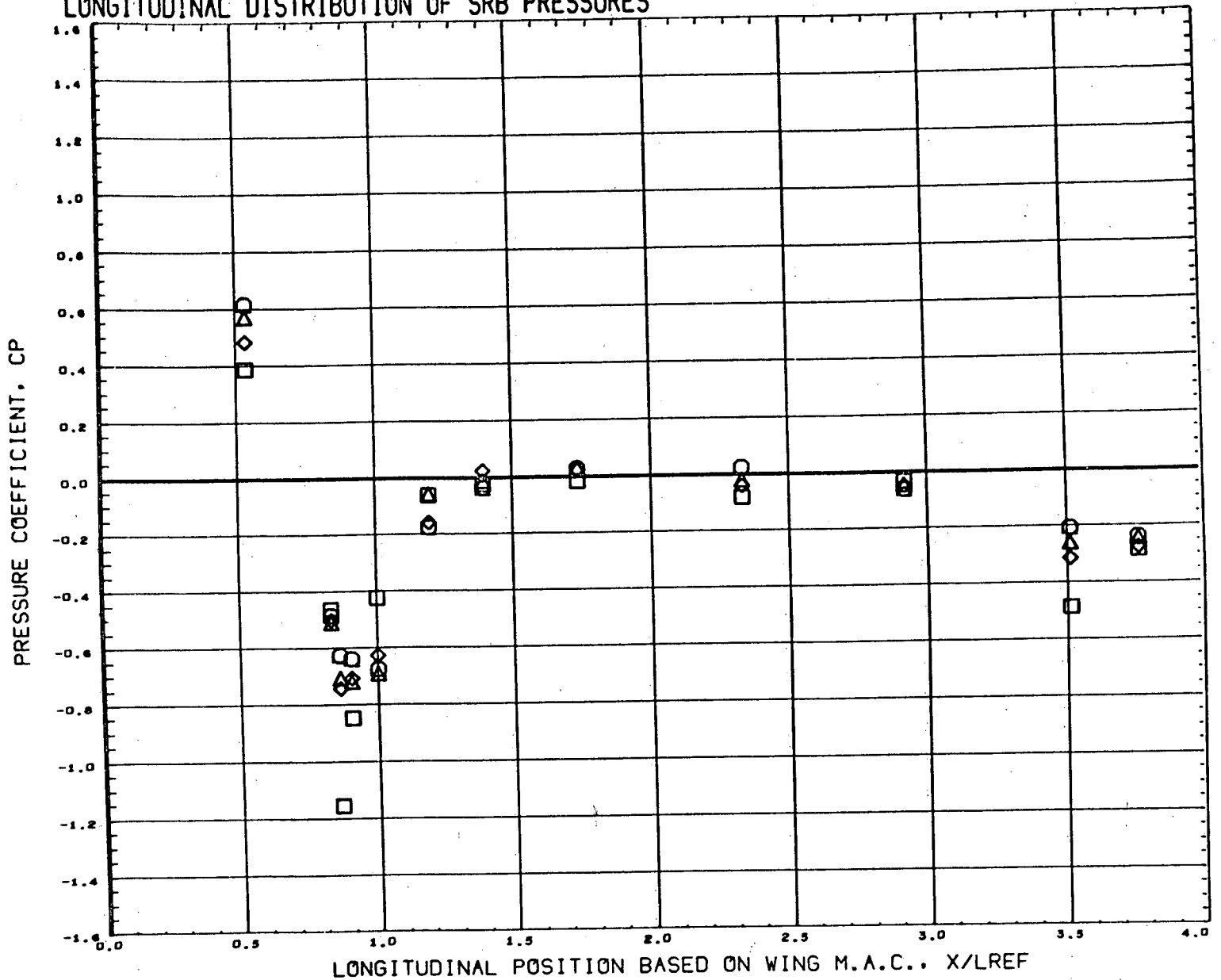
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240,000	4.000	0.800	BETA	0.000 ORBINC - 1.500
△	255,000			SRBGAP	0.025
◇	270,000				
□	285,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	300,000	4.000	0.800
△	315,000		
◇	330,000		
□	345,000		

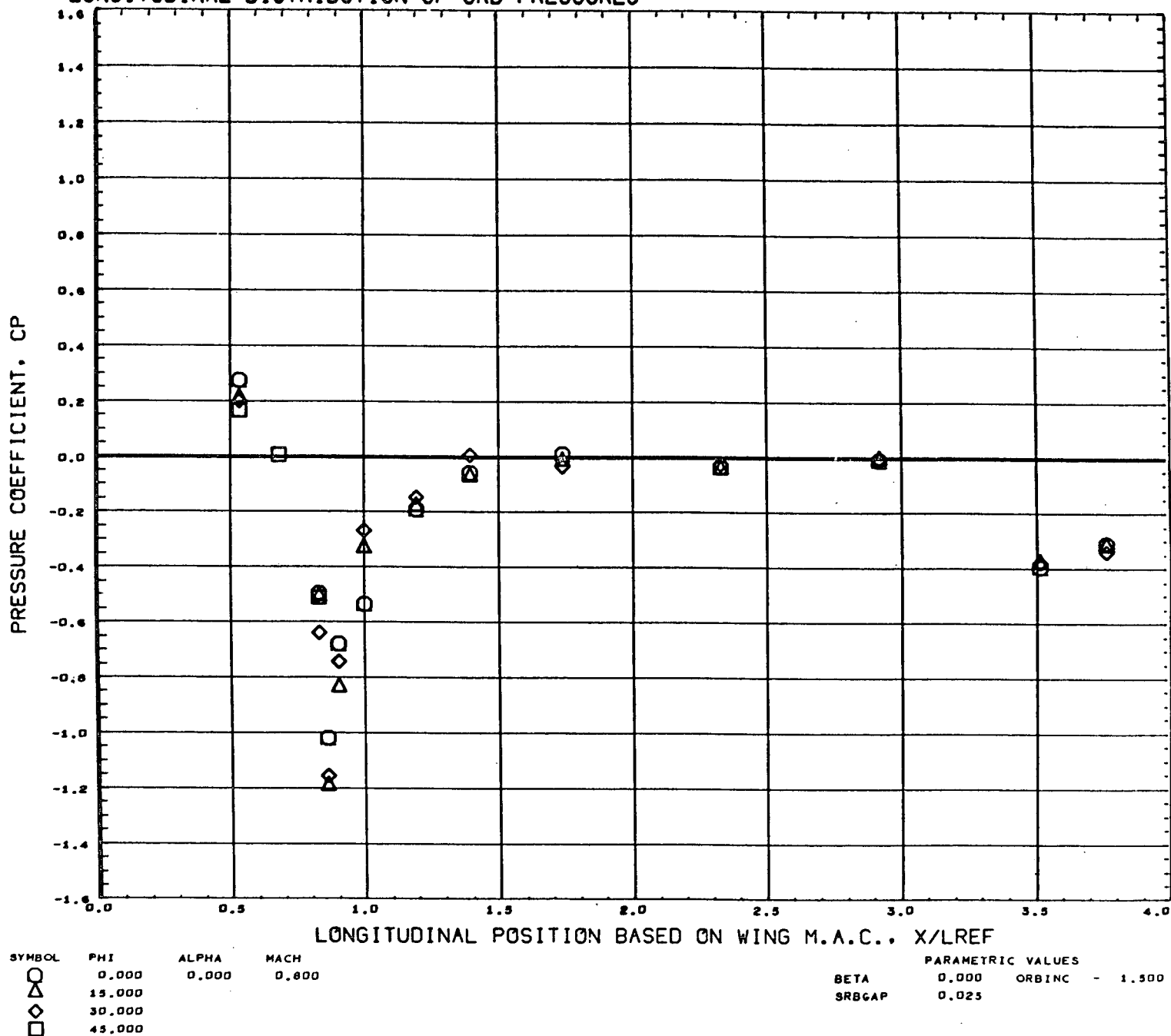
PARAMETRIC VALUES	
BETA	0.000
SRBGAP	0.025
ORBINC	1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

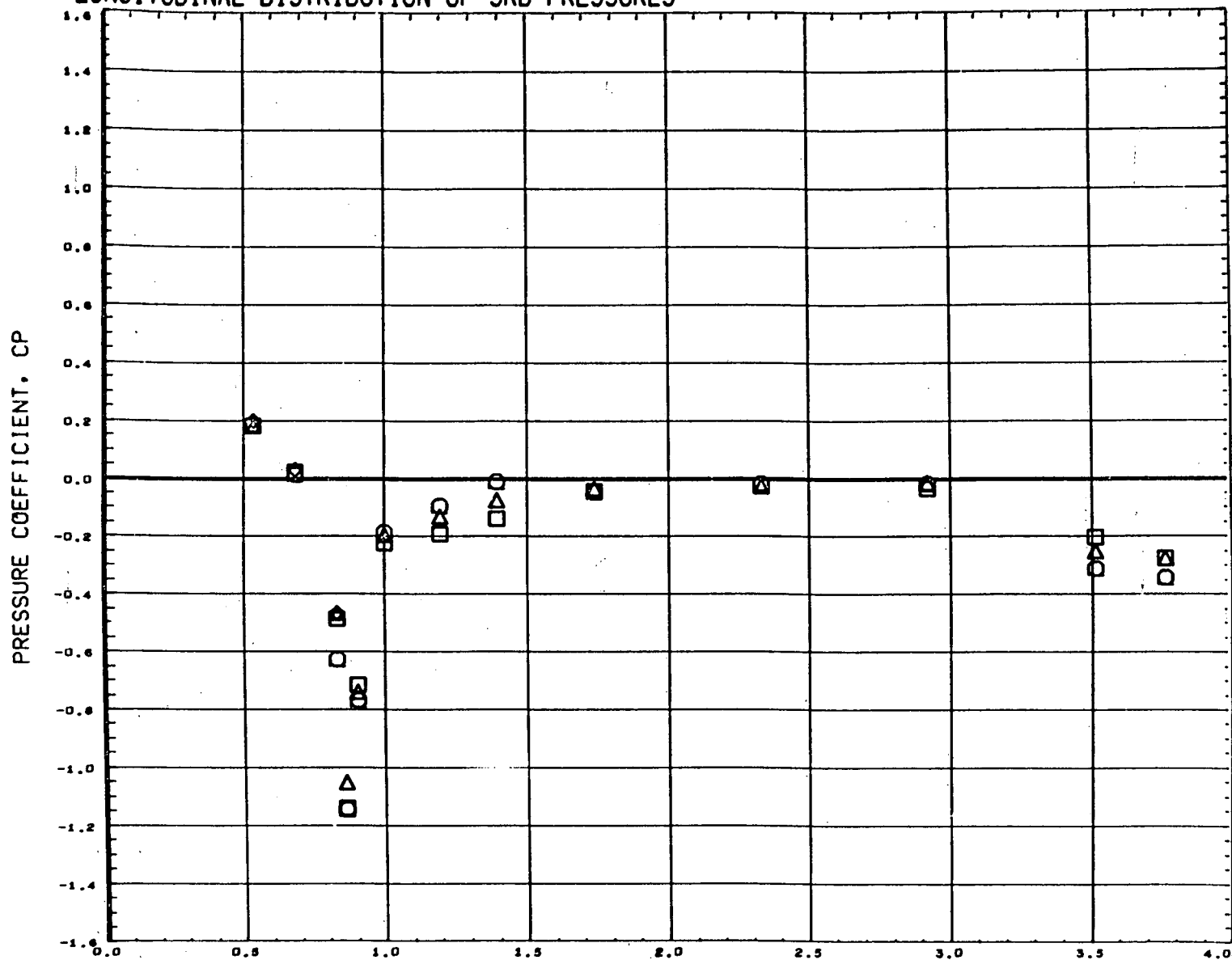
PAGE 327

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

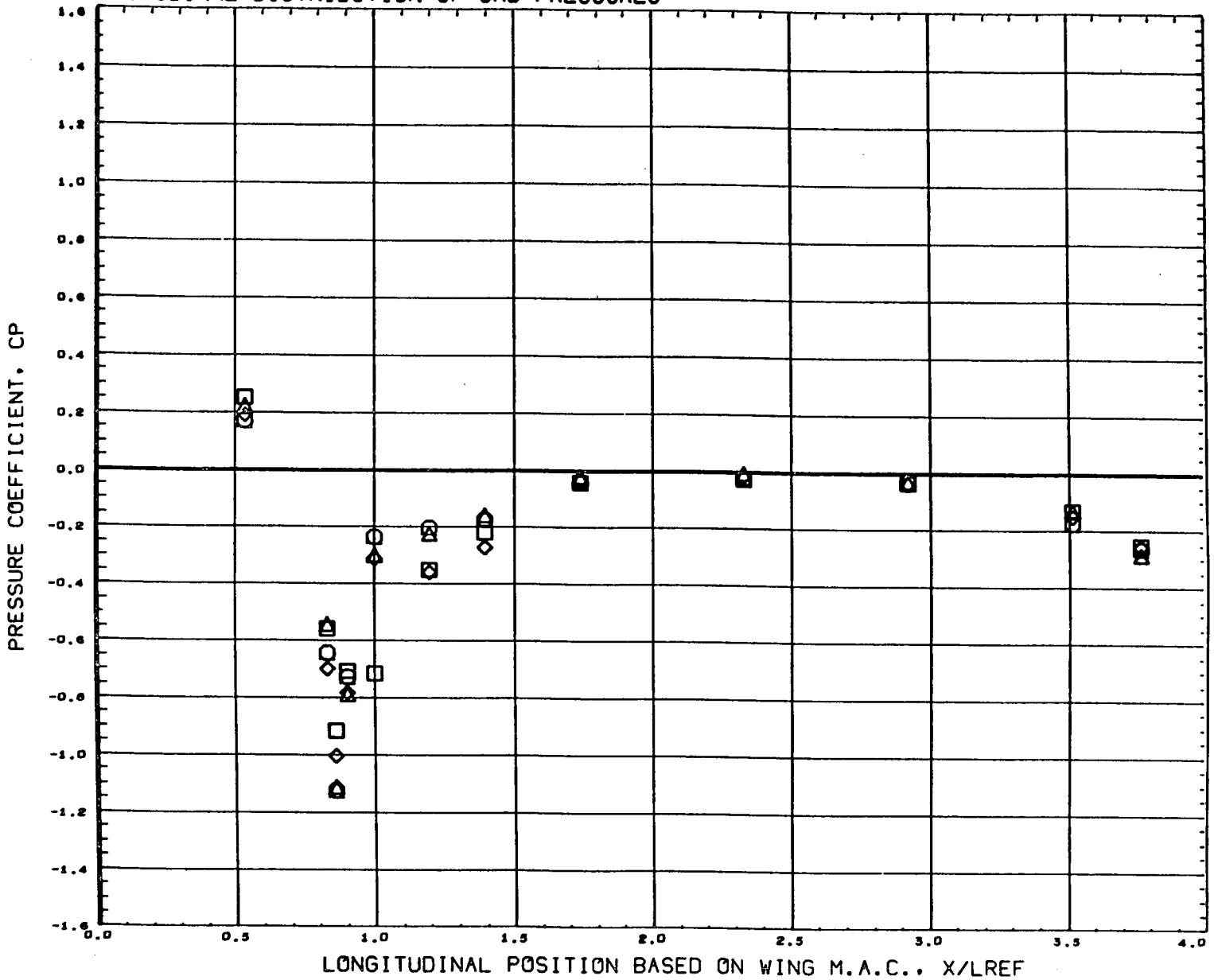


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60,000	0.000	0.800	BETA	0.000 ORBINC - 1.500
△	75,000			SRBGAP	0.025
◇	90,000				
□	105,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

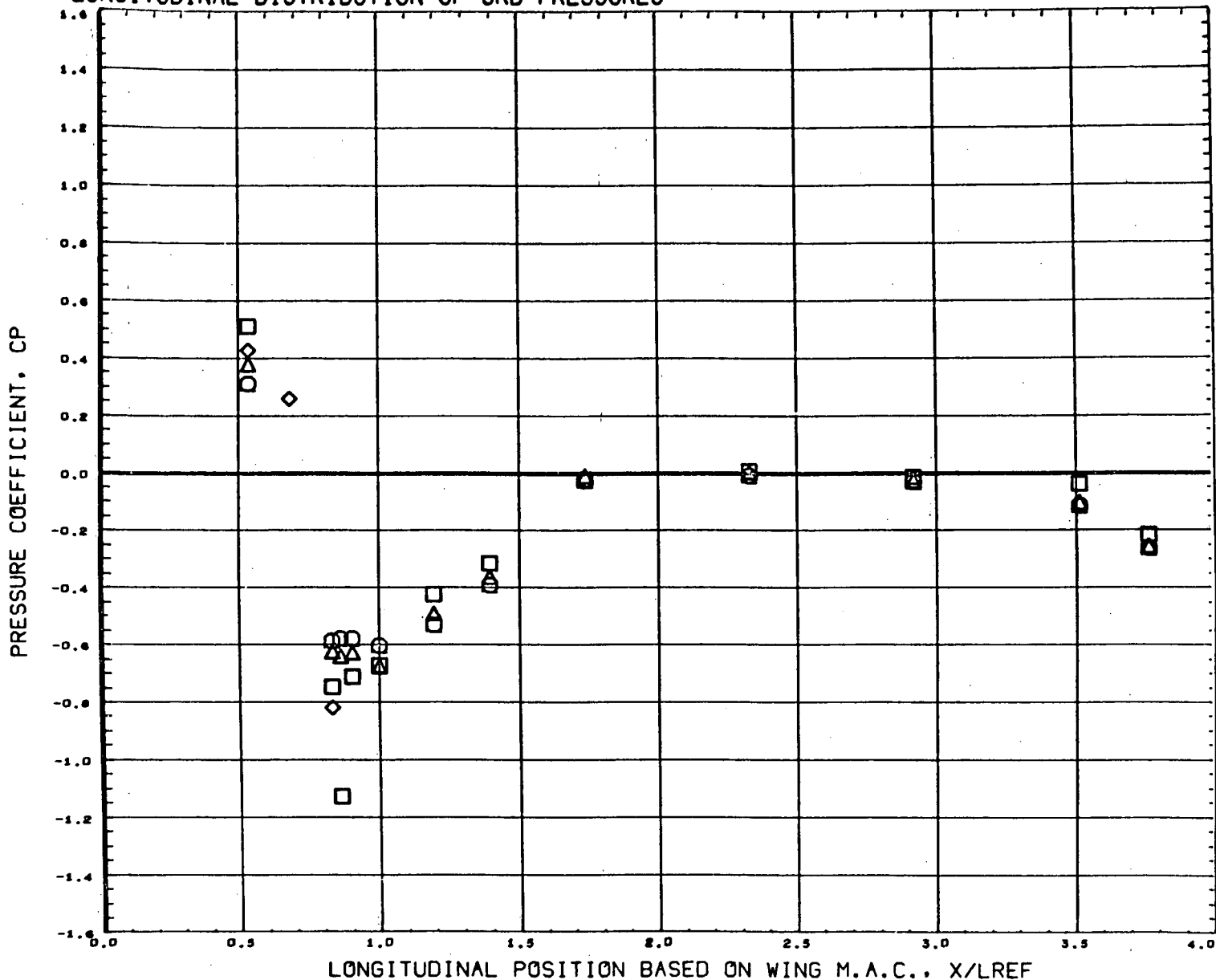
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120,000	0.000	0.800	BETA	0.000	ORBINC - 1.500
△	135,000			SRBGAP	0.025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

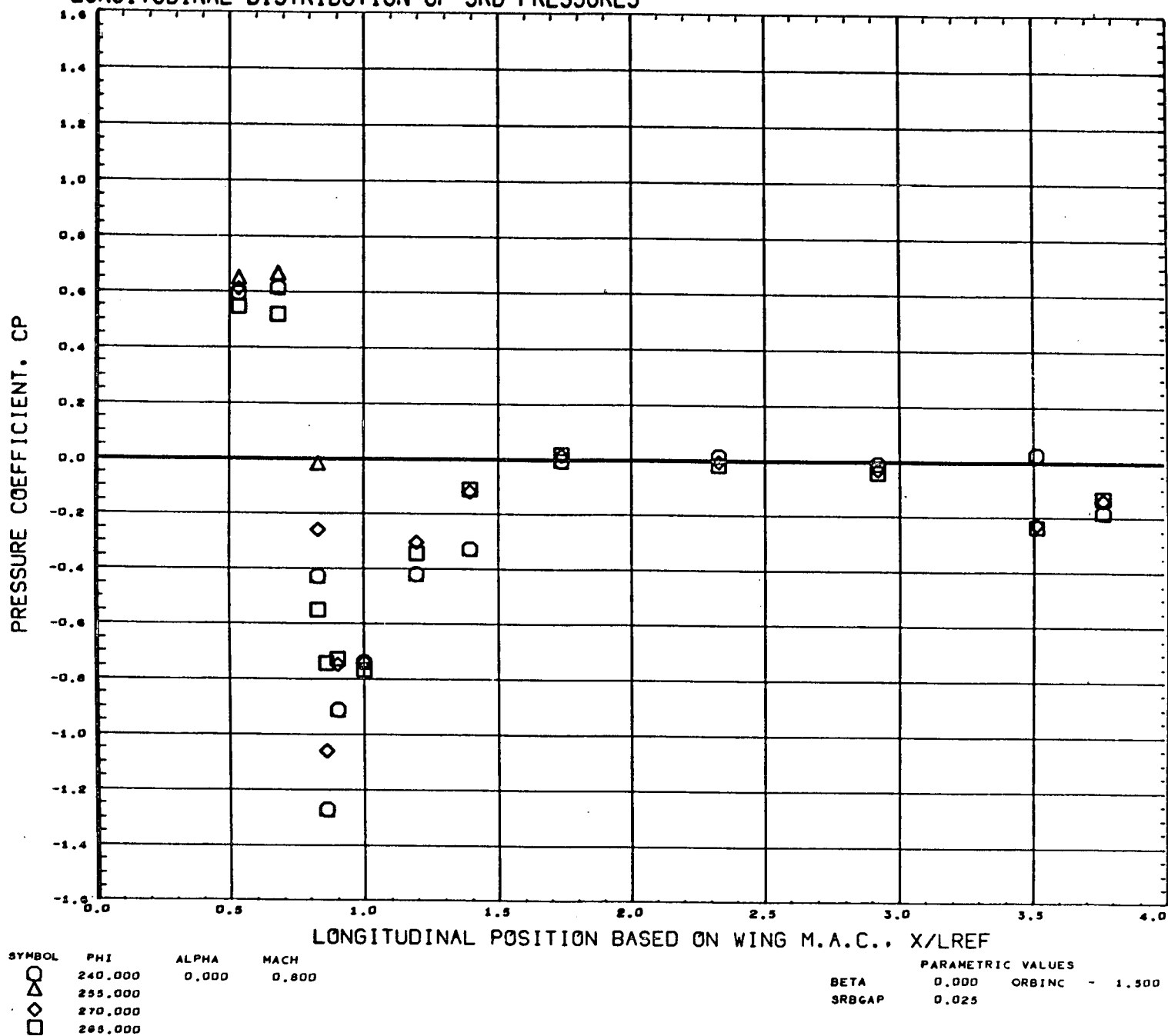
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	160.000	0.000	0.800	BETA	0.000	ORBINC - 1.500
△	195.000			SRBGAP	0.025	
◇	210.000					
□	225.000					

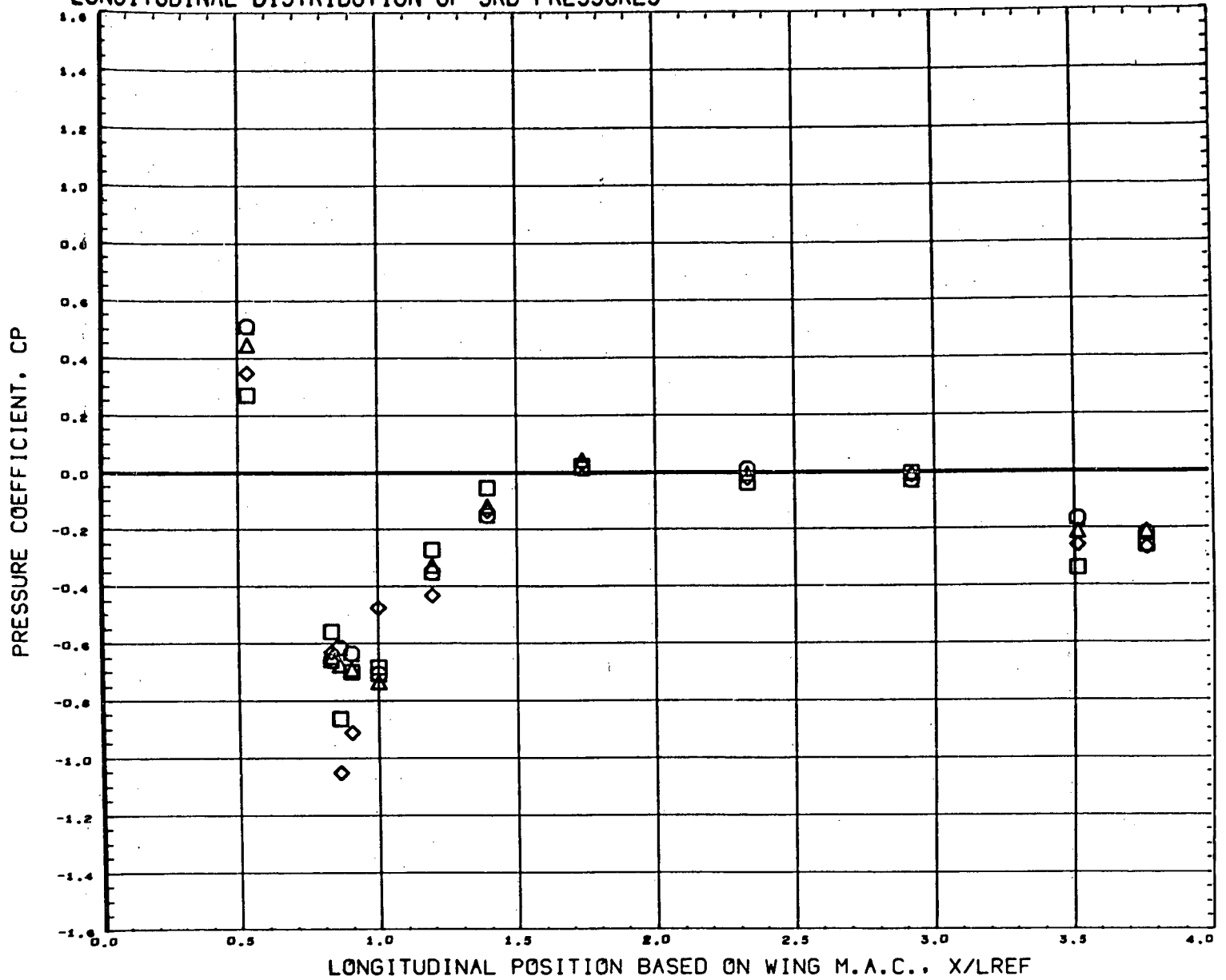
NOTE- SRB NOSE LOCATED AT X/LREF=3.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

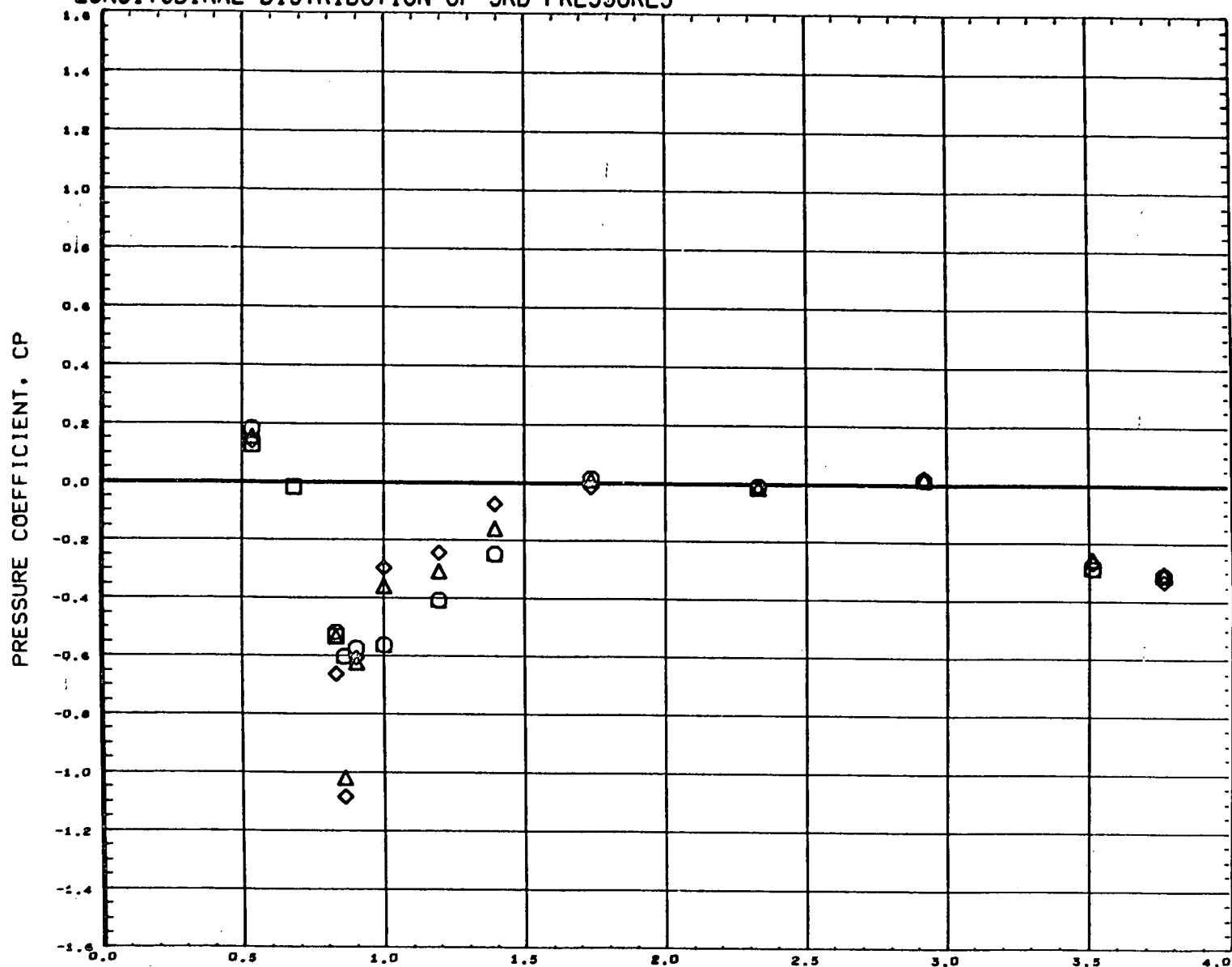
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300.000	0.000	0.800	BETA	0.000 ORBINC - 1.500
△	315.000			SRBGAP	0.025
◇	330.000				
□	345.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

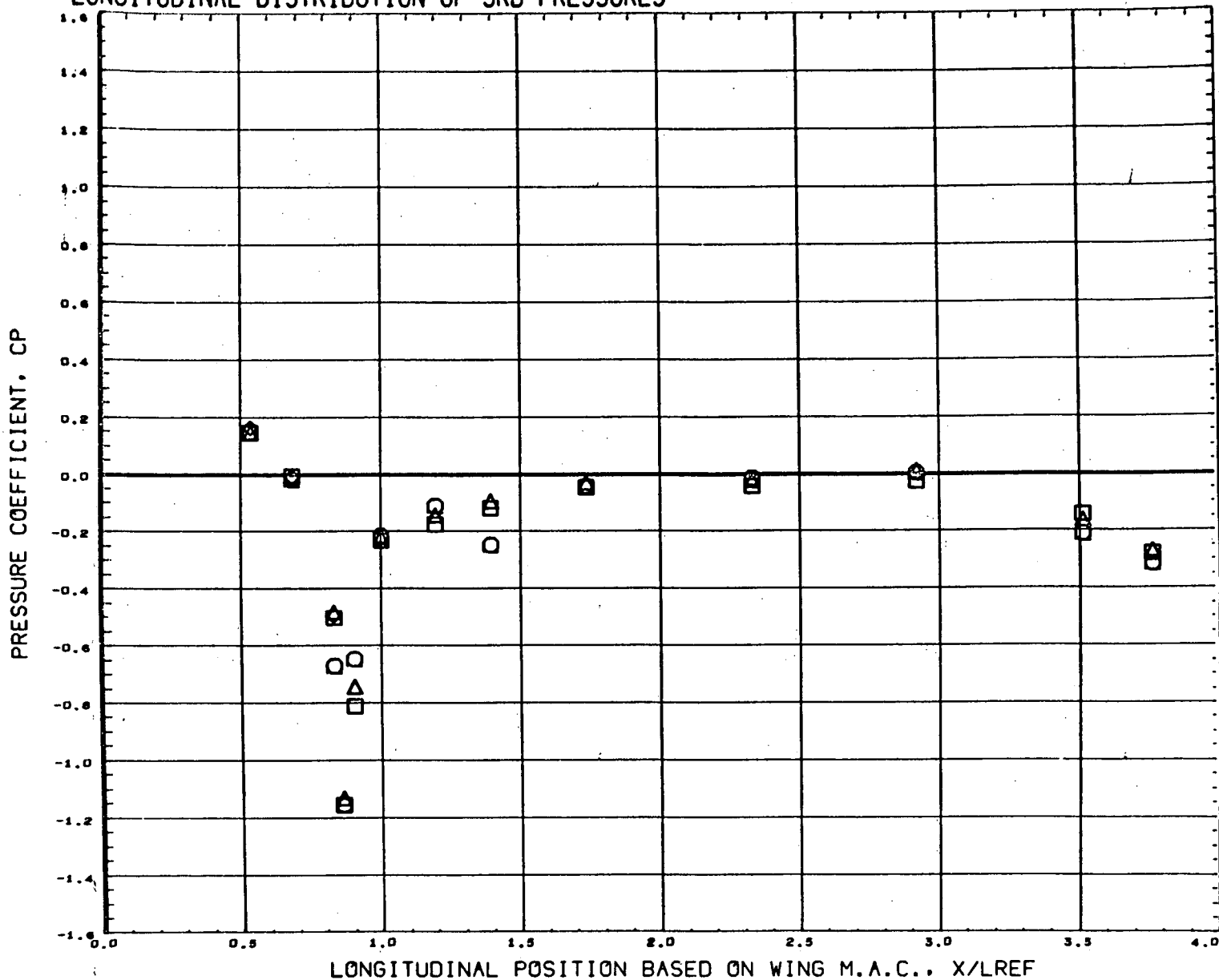
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	0.800	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

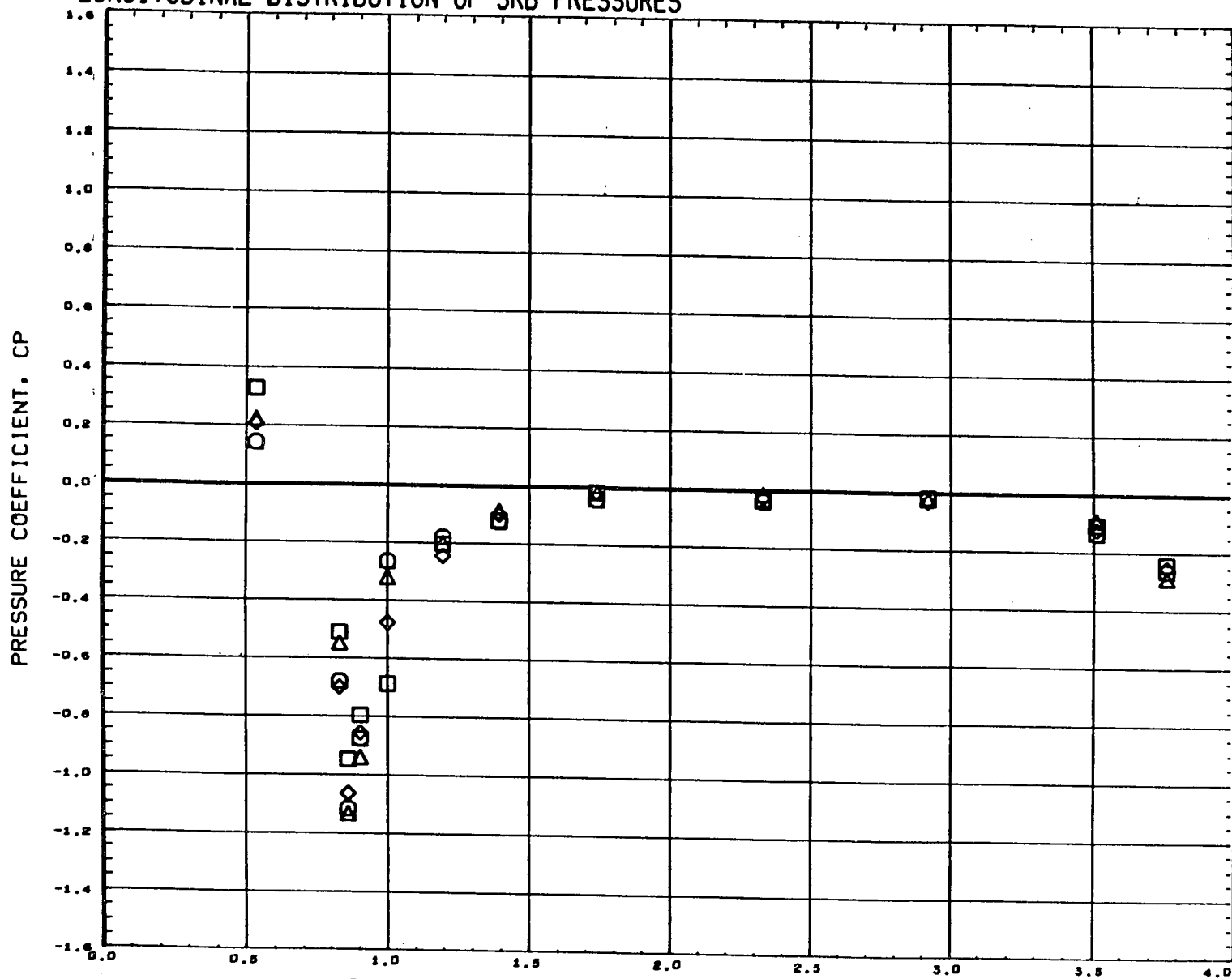
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	4.000	0.800	BETA	0.000	ORBINC - 1.500
△	75.000			SRBGAP	0.025	
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	120.000	4.000	0.800
△	135.000		
◇	150.000		
□	165.000		

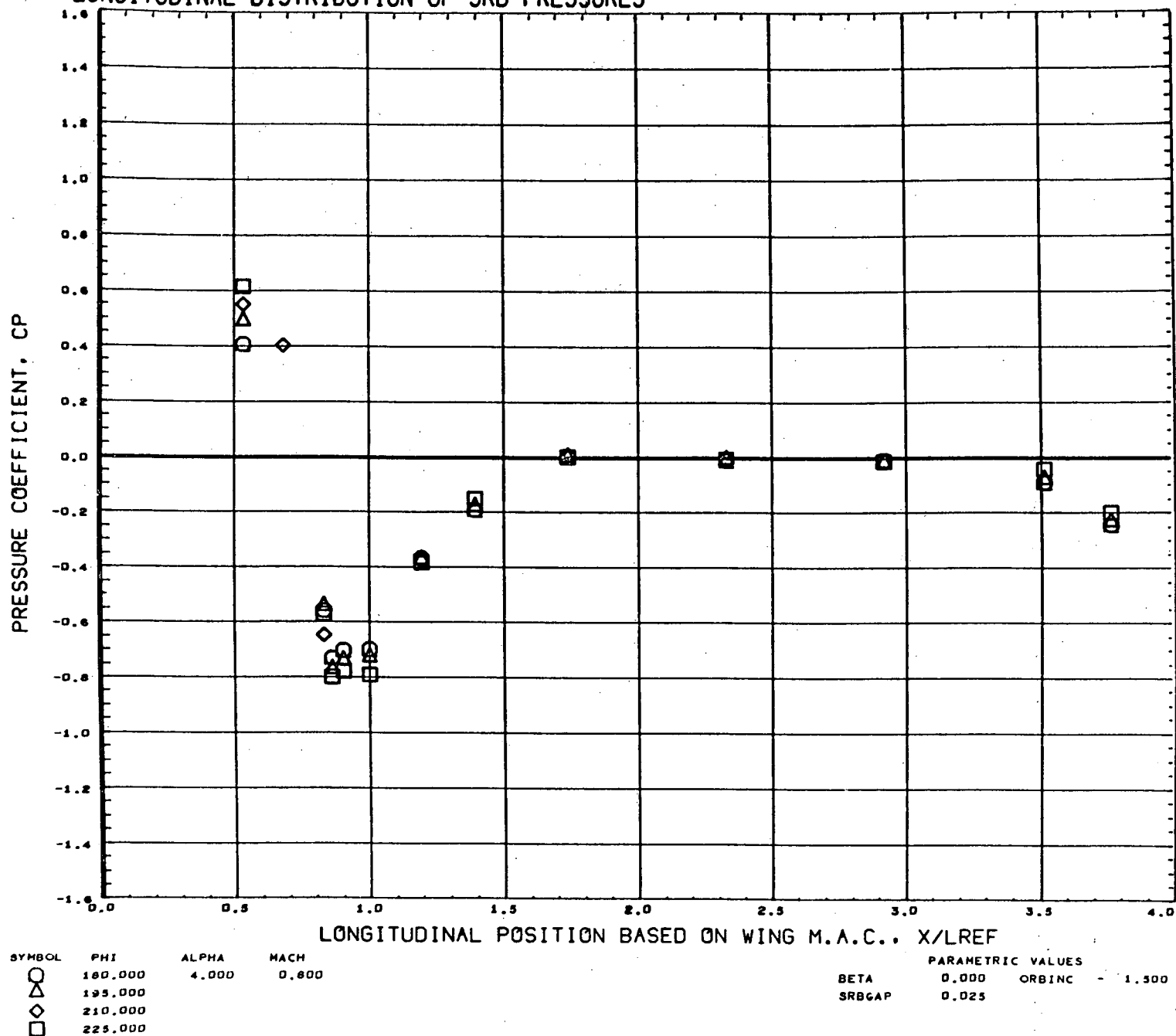
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

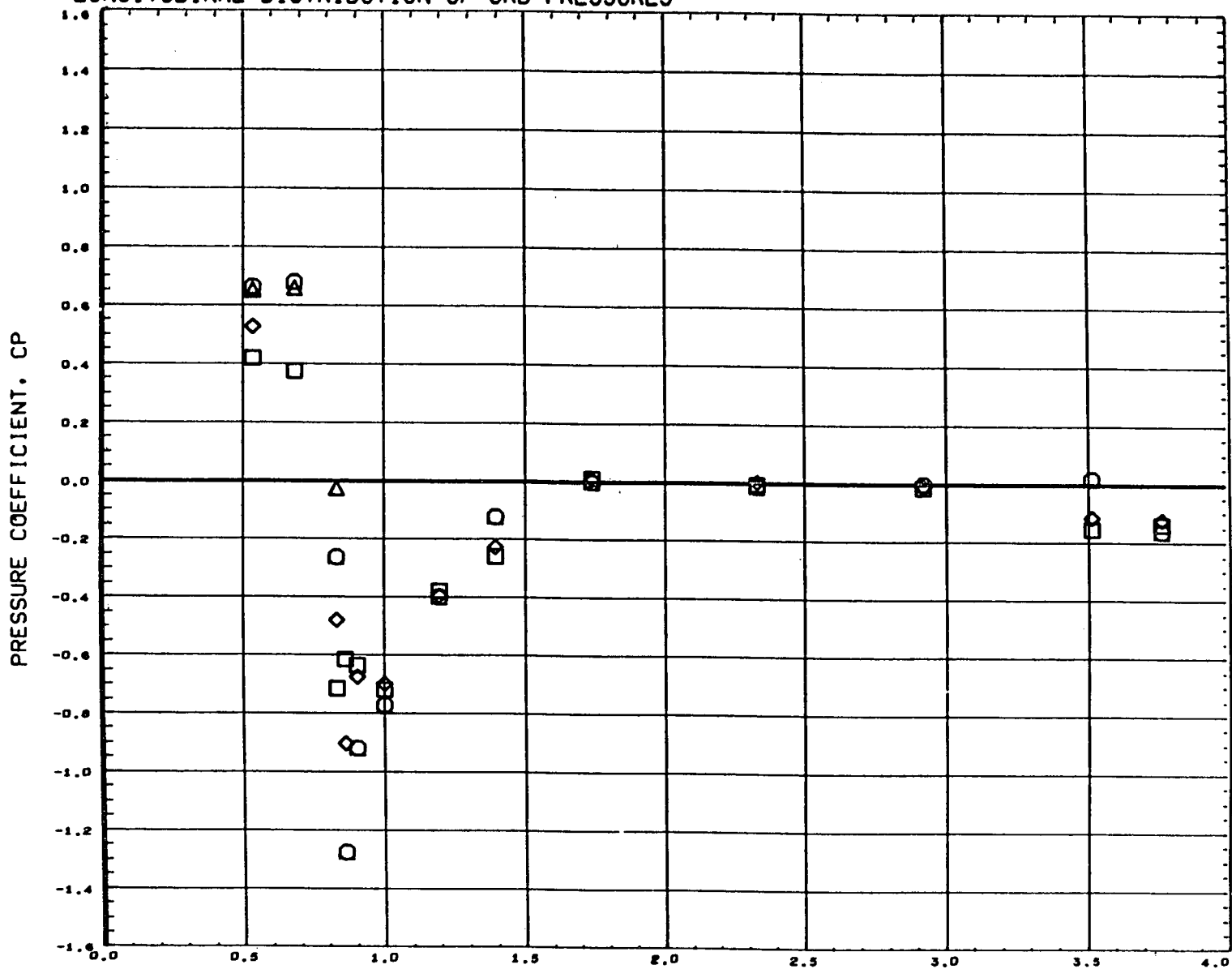
PAGE 336

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



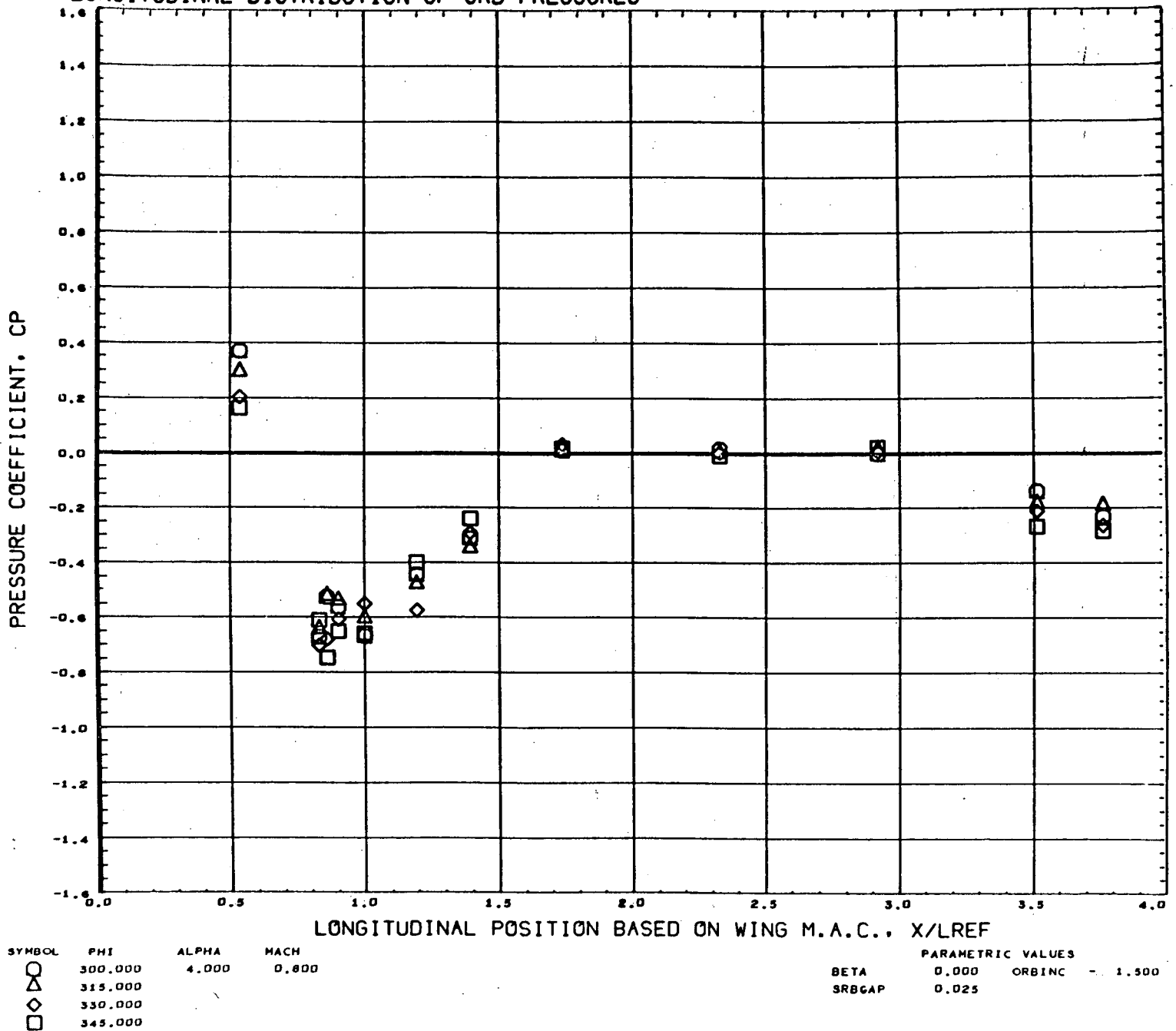
SYMBOL	PHI	ALPHA	MACH
○	240.000	4.000	0.800
△	255.000		
◇	270.000		
□	285.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

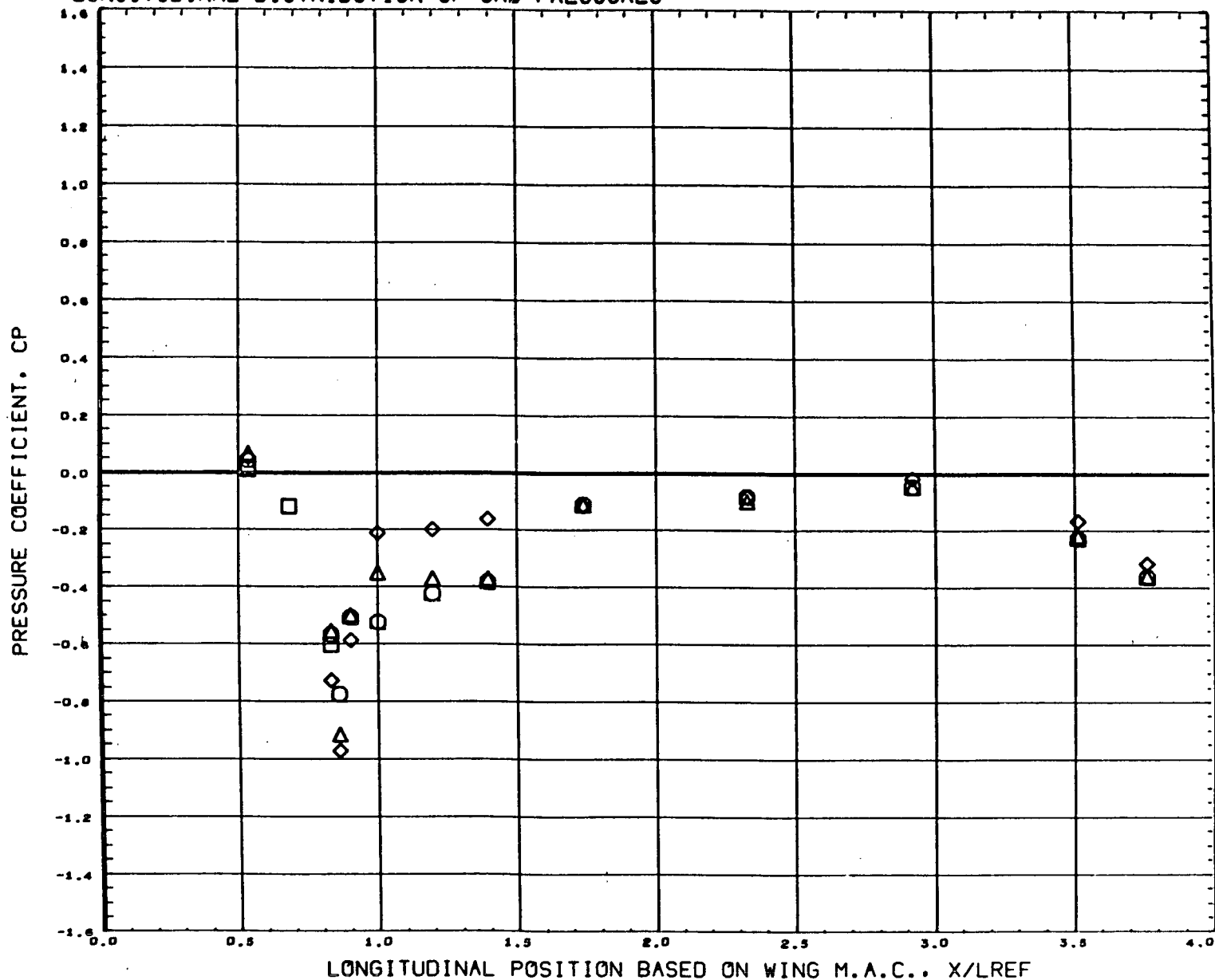
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LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

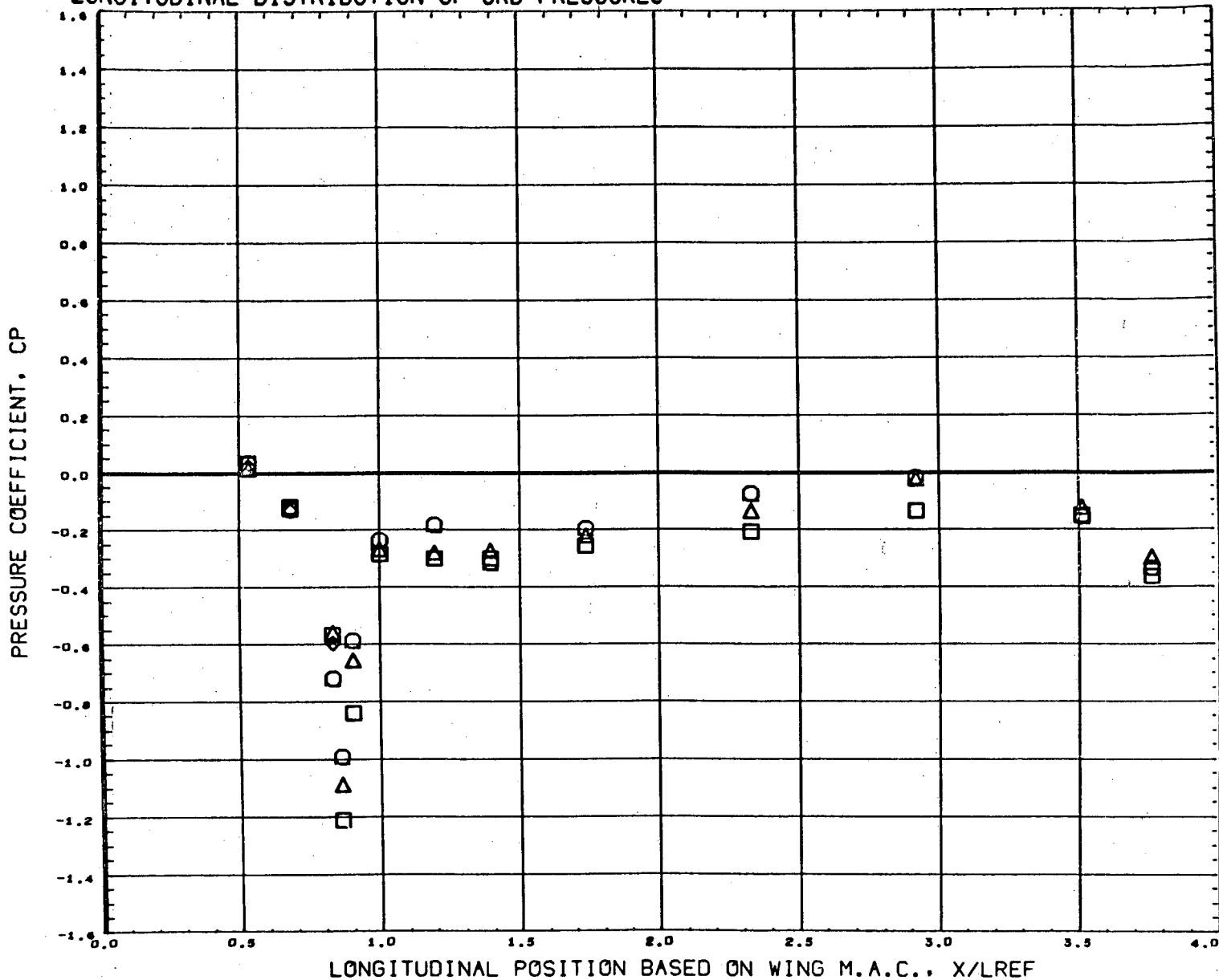
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	0.800	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

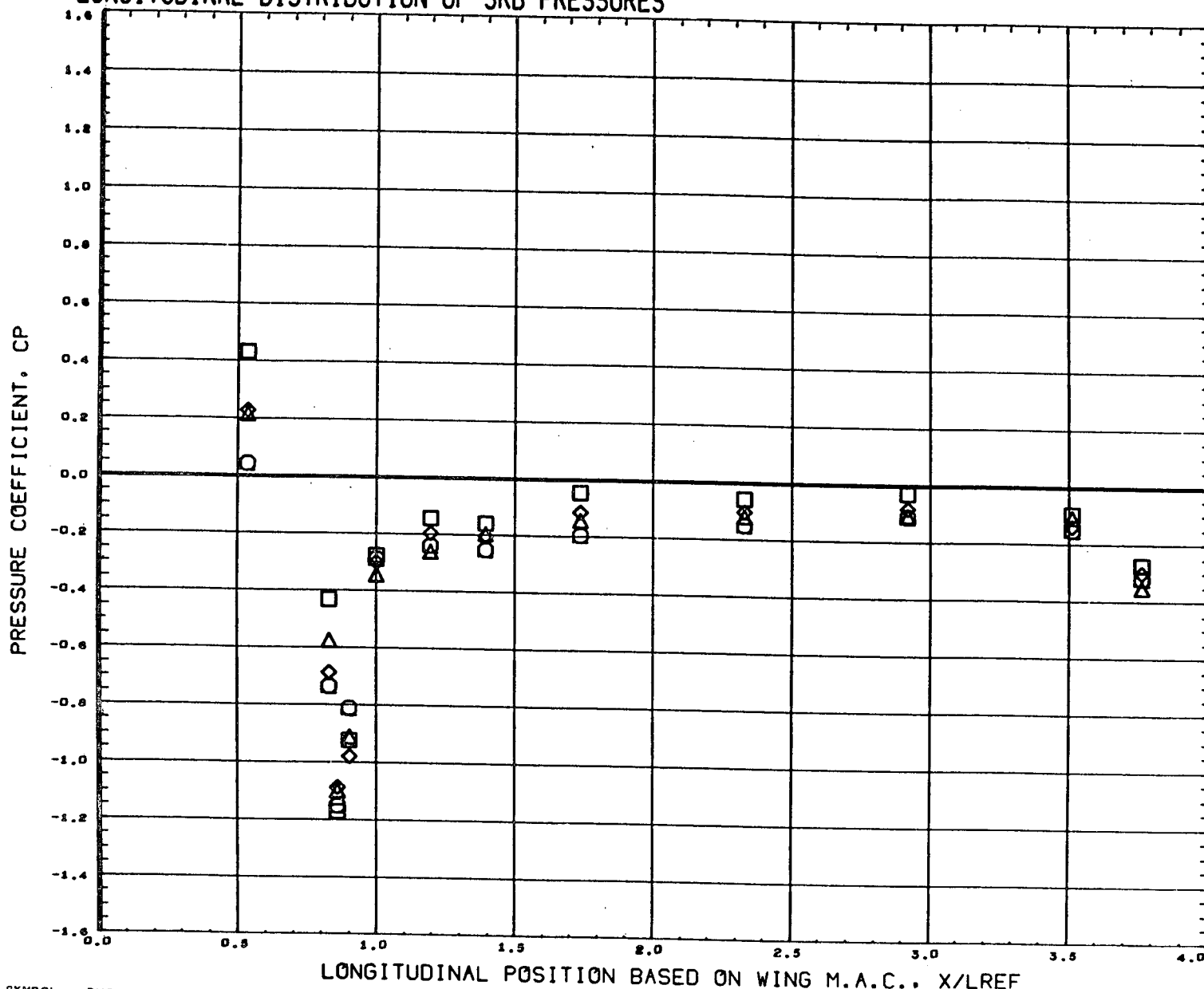
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	10.000	0.800	BETA	0.000 ORBINC - 1.500
△	75.000			SRBGAP	0.025
◇	90.000				
□	105.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



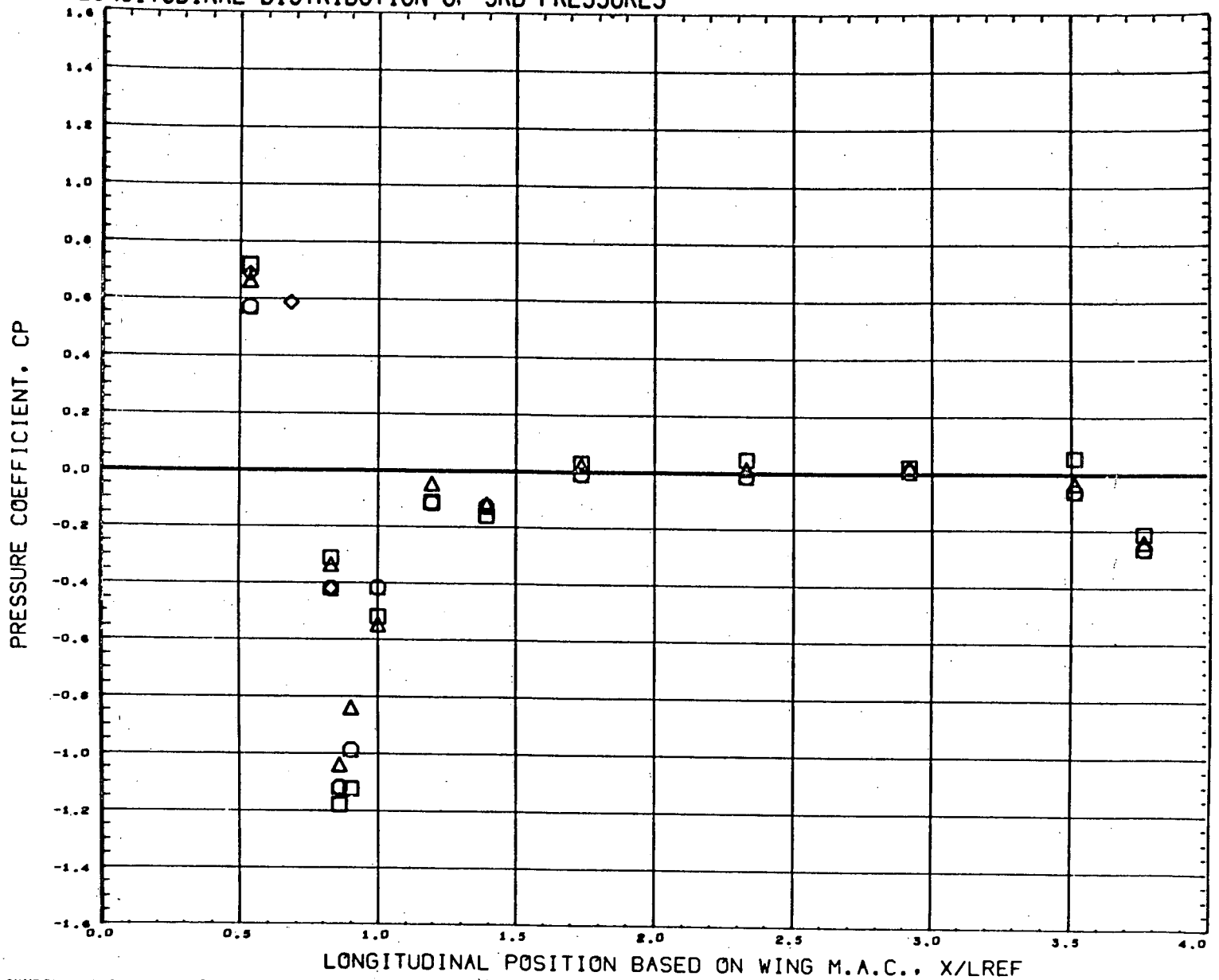
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	10.000	0.800	BETA	0.000	ORBINC - 1.500
△	135.000			SRBCAP	0.025	
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 342

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	180.000	10.000	0.800
△	195.000		
◇	210.000		
□	225.000		

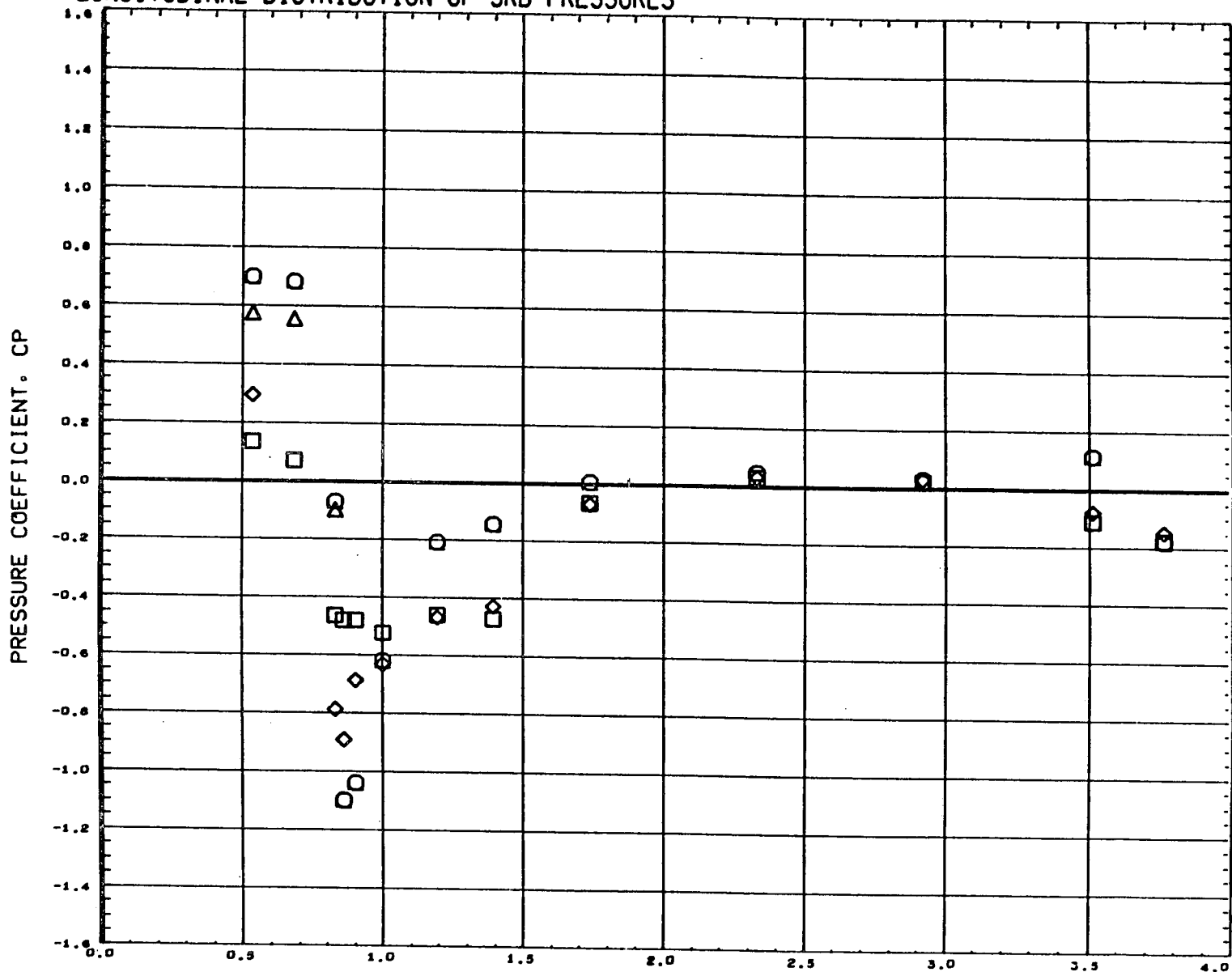
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 343

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



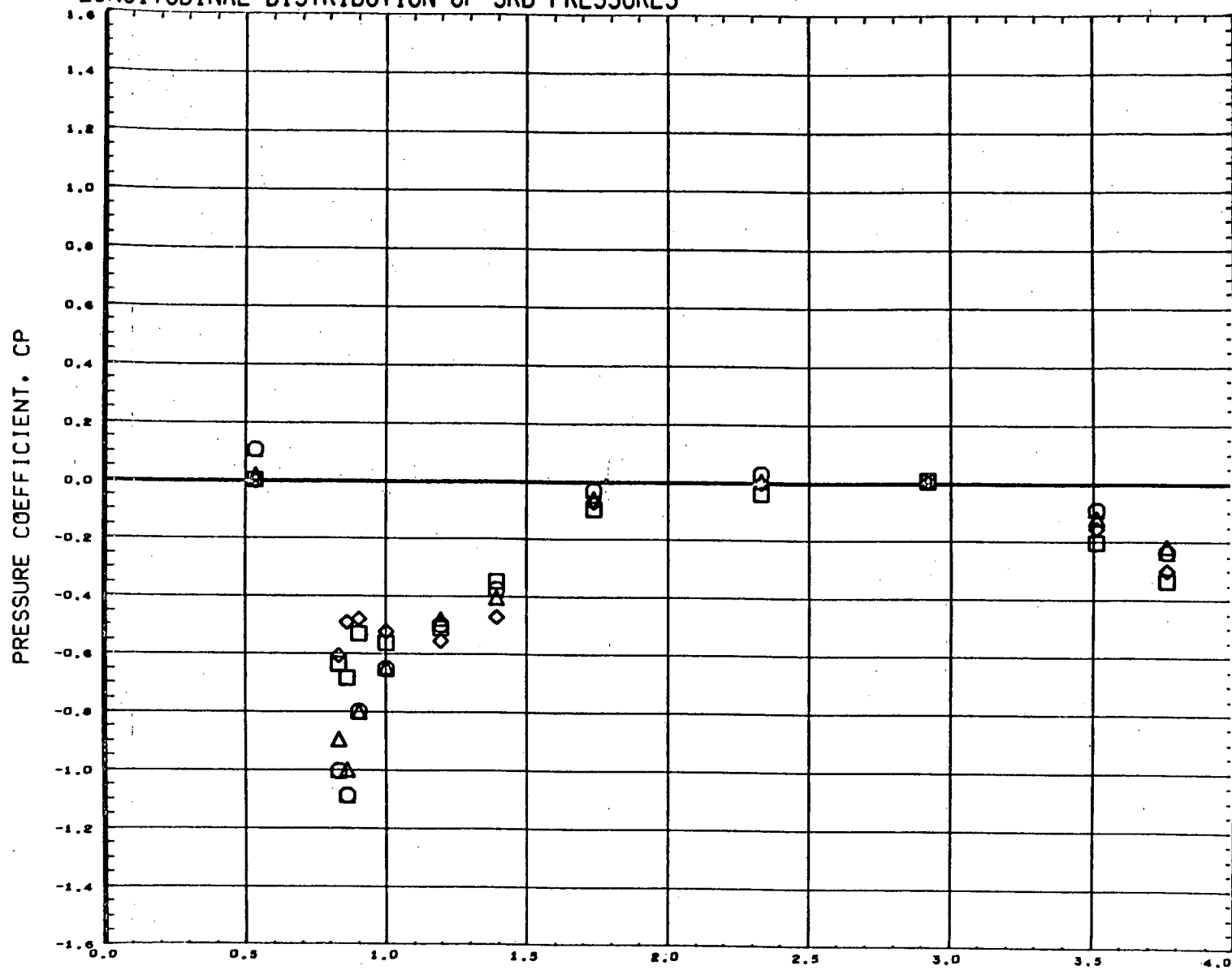
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	240,000	10,000	0,800
△	255,000		
◇	270,000		
□	285,000		

PARAMETRIC VALUES
 BETA 0,000 ORBINC - 1,500
 SRBGAP 0,025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



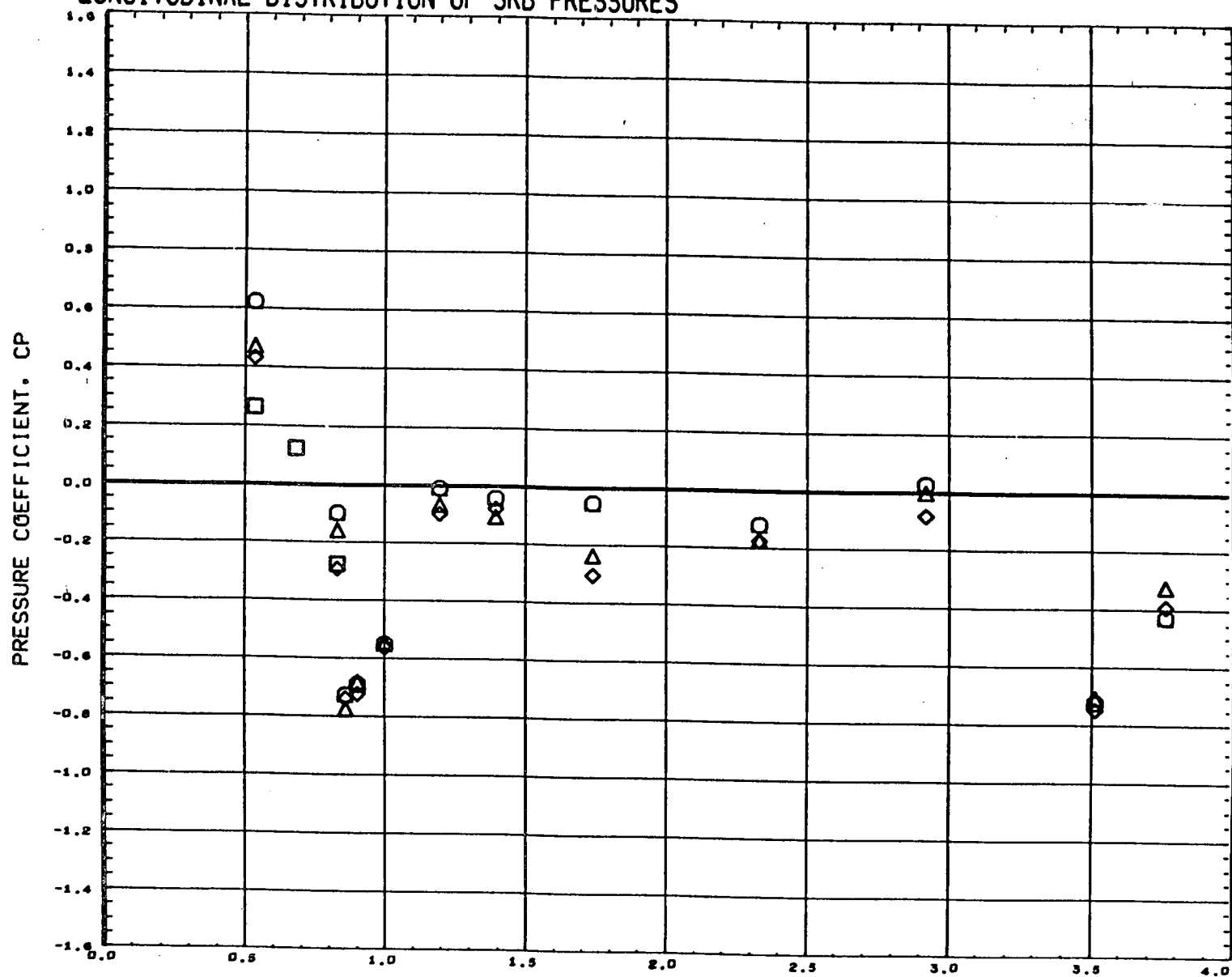
SYMBOL
 ○
 △
 ◇
 □

PHI	ALPHA	MACH
300.000	10.000	0.800
315.000		
330.000		
345.000		

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○ 0.000
 △ 15.000
 ◇ 30.000
 □ 45.000

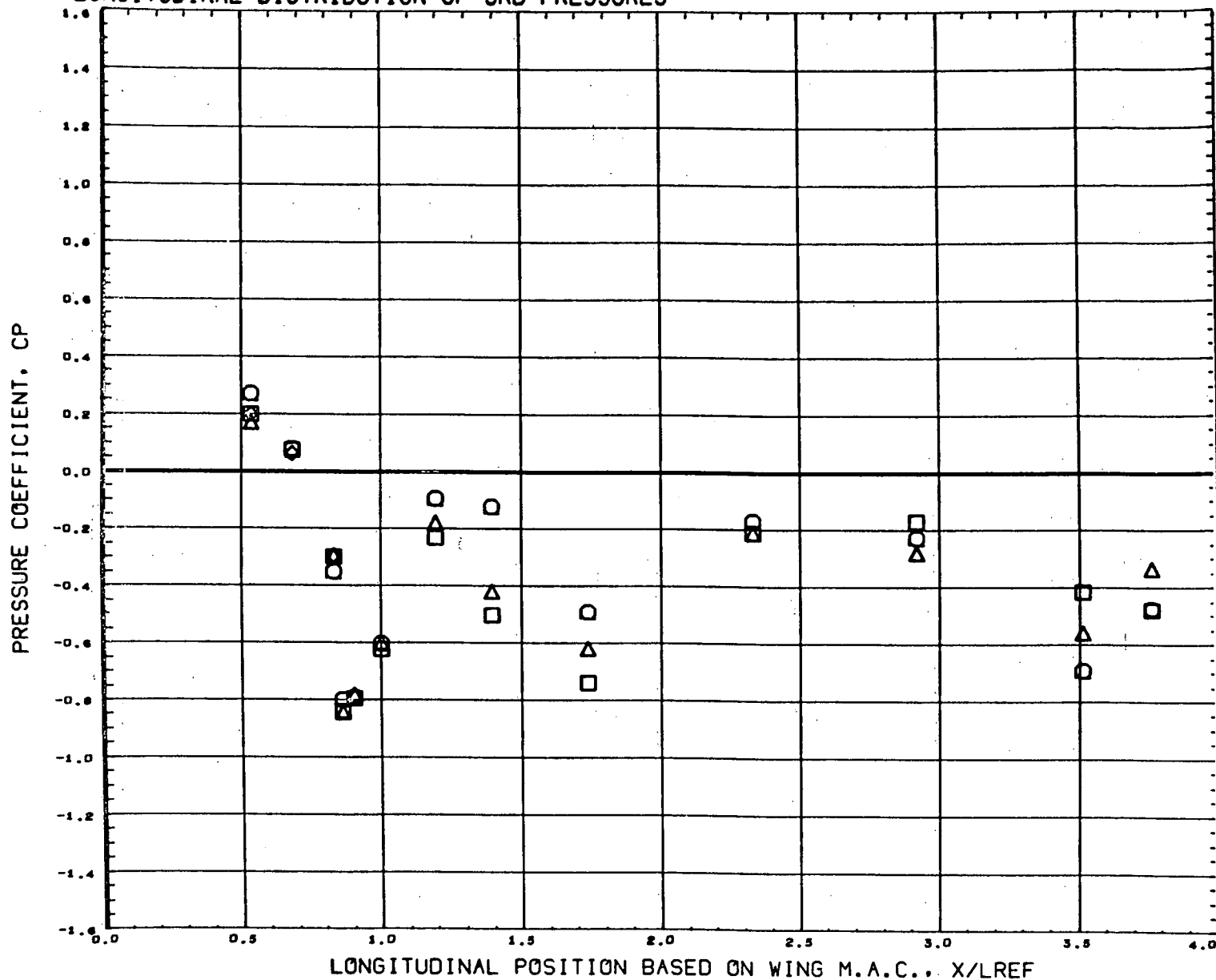
NOTE- SRB NOSE LOCATED AT X/LREF=.369

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 346

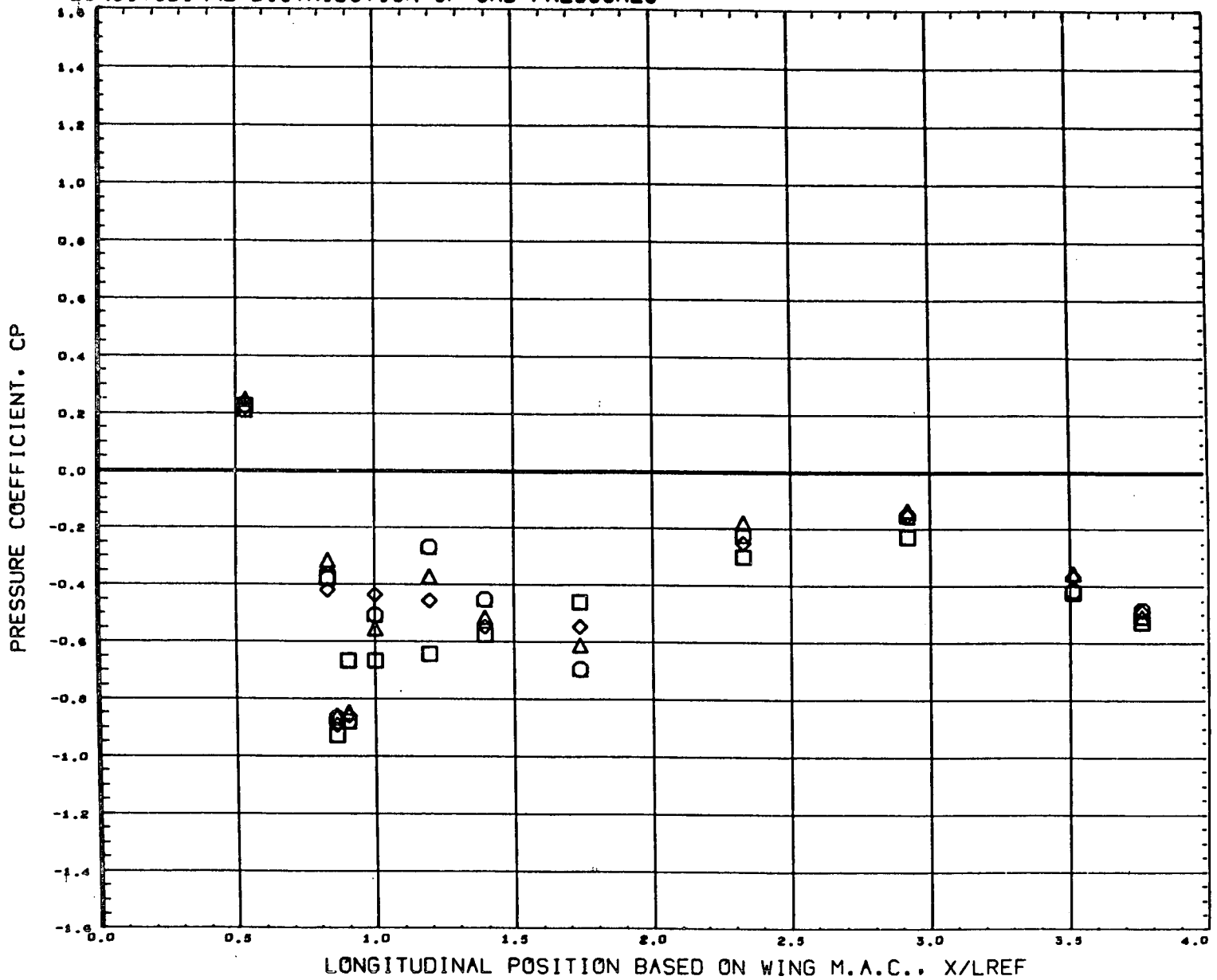
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	60.000	10.000	0.950	0.000	0.025	ORBINC - 1.500
△	75.000					
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

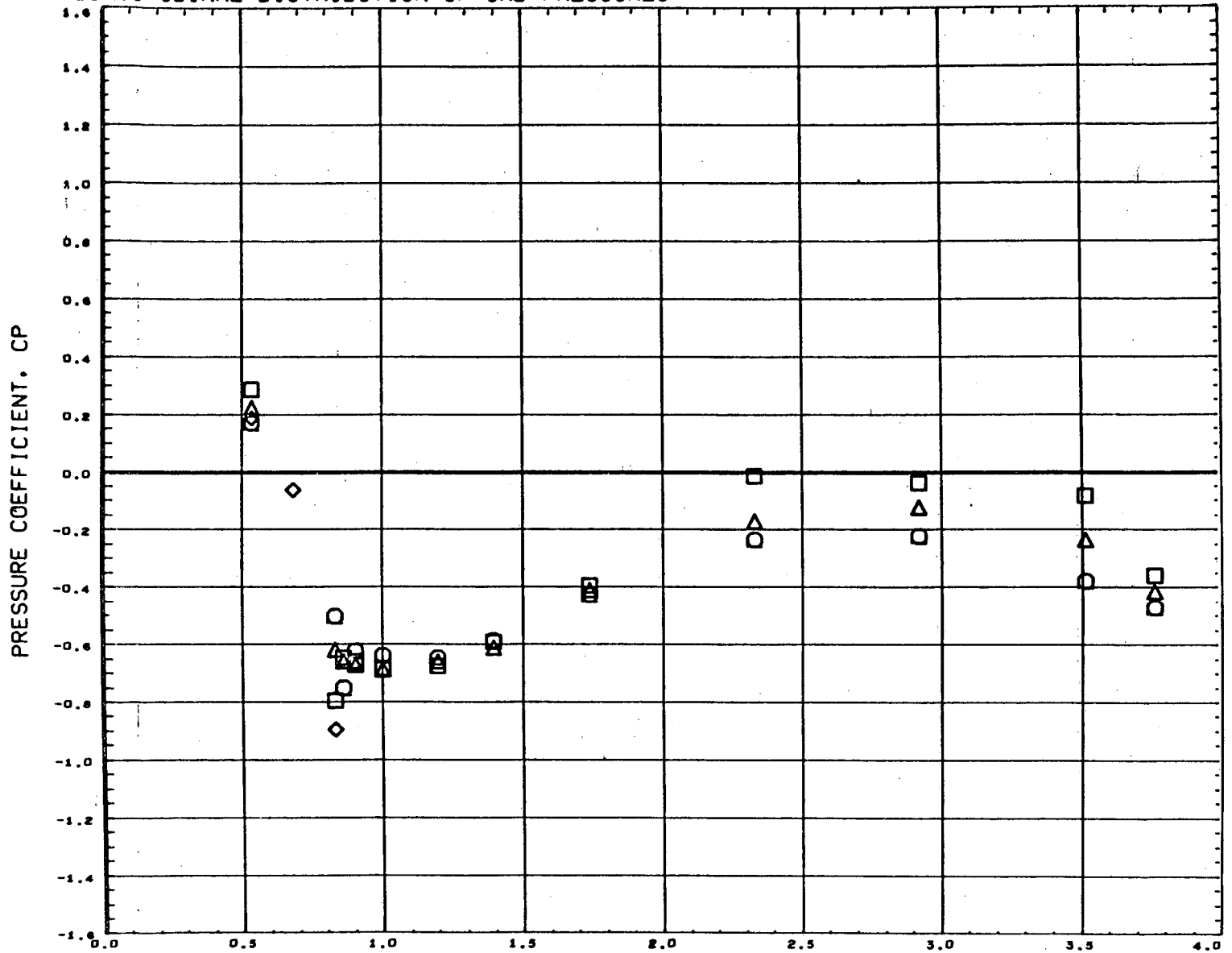
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	- 10.000	0.950	BETA	0.000	ORBINC - 1.500
△	135.000			SRBGAP	0.025	
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



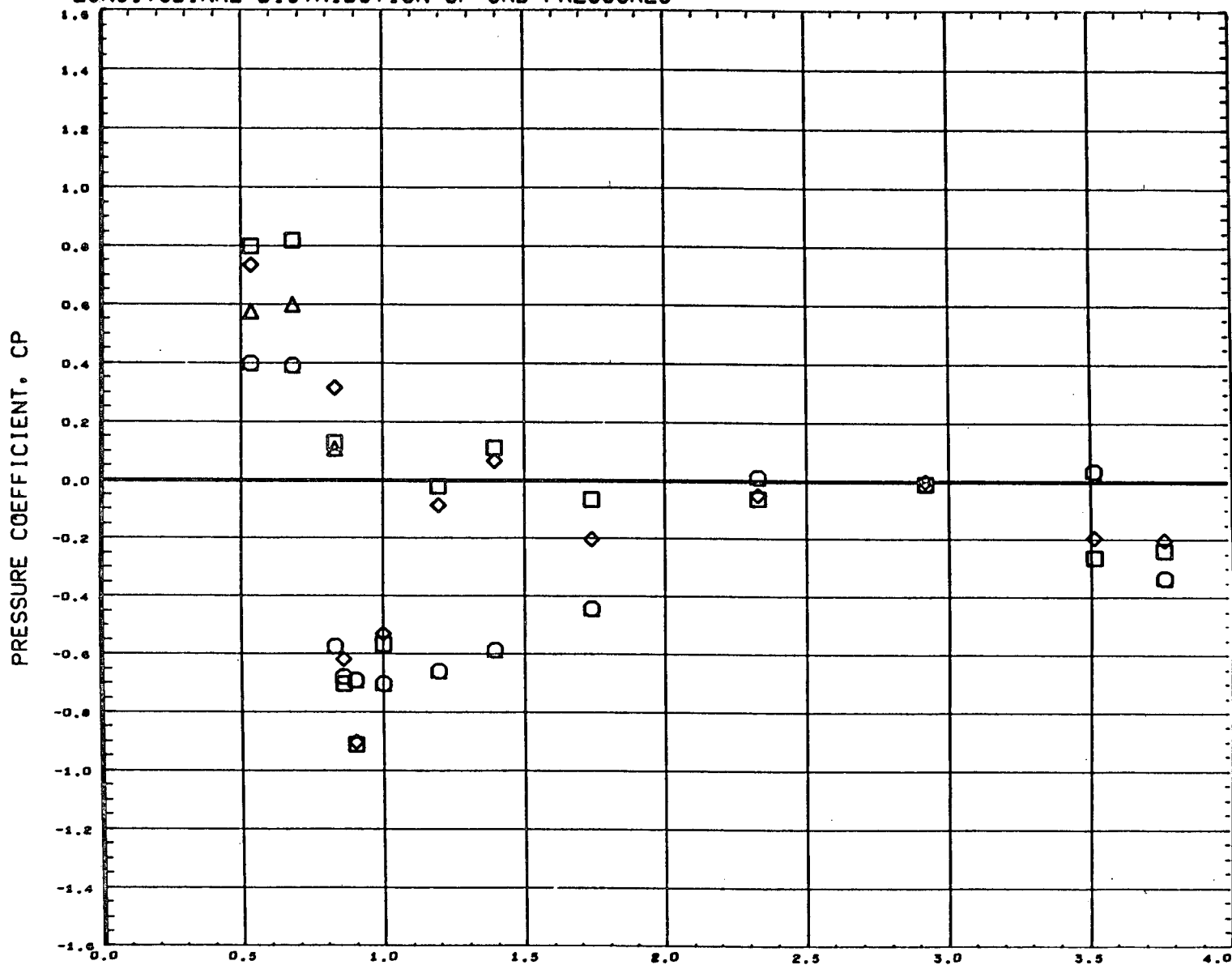
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	180,000	- 10.000	0.950
△	195,000		
◇	210,000		
□	225,000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

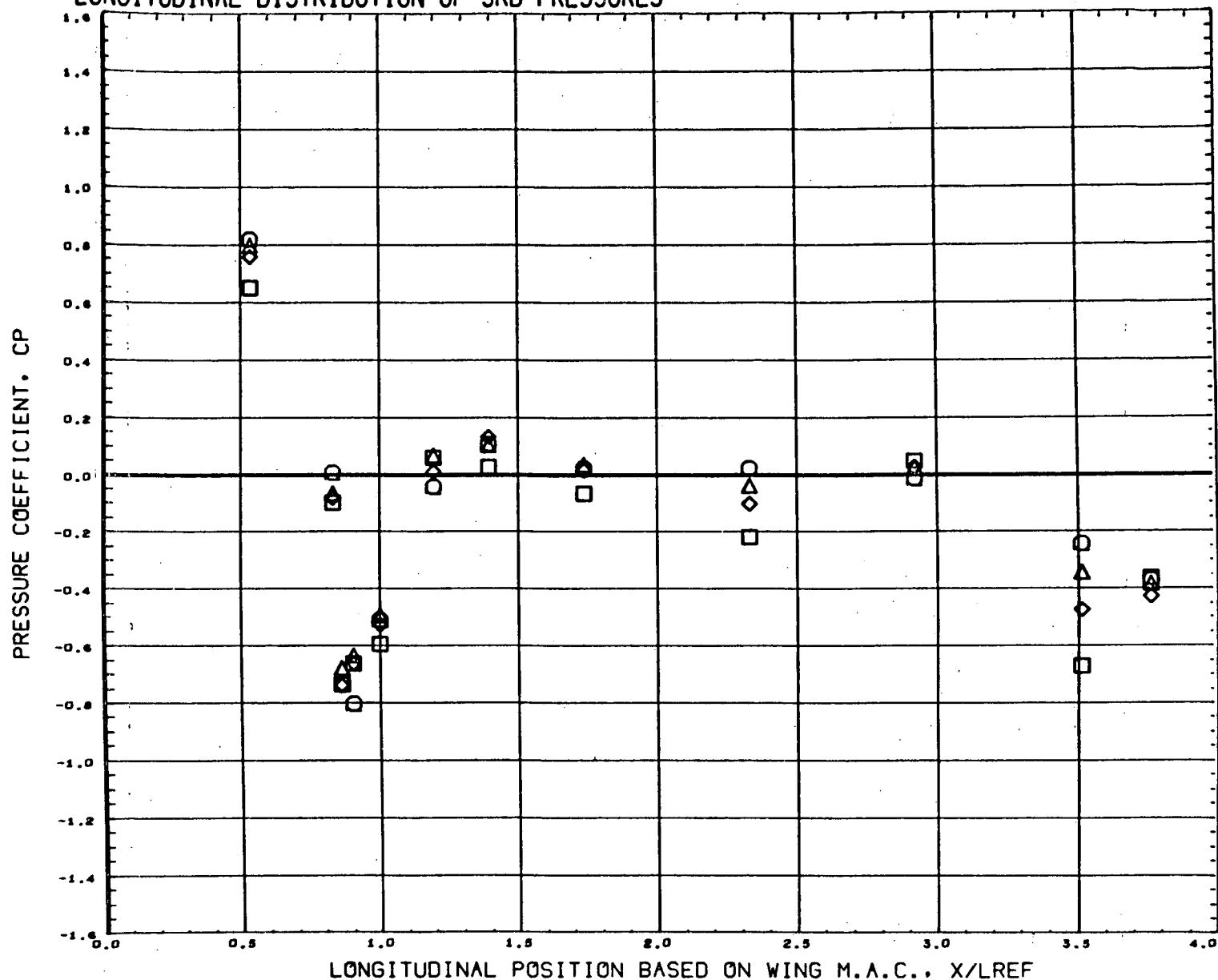
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240.000	- 10.000	0.950	BETA	0.000 ORBINC - 1.500
△	255.000			SRBCAP	0.025
◇	270.000				
□	285.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

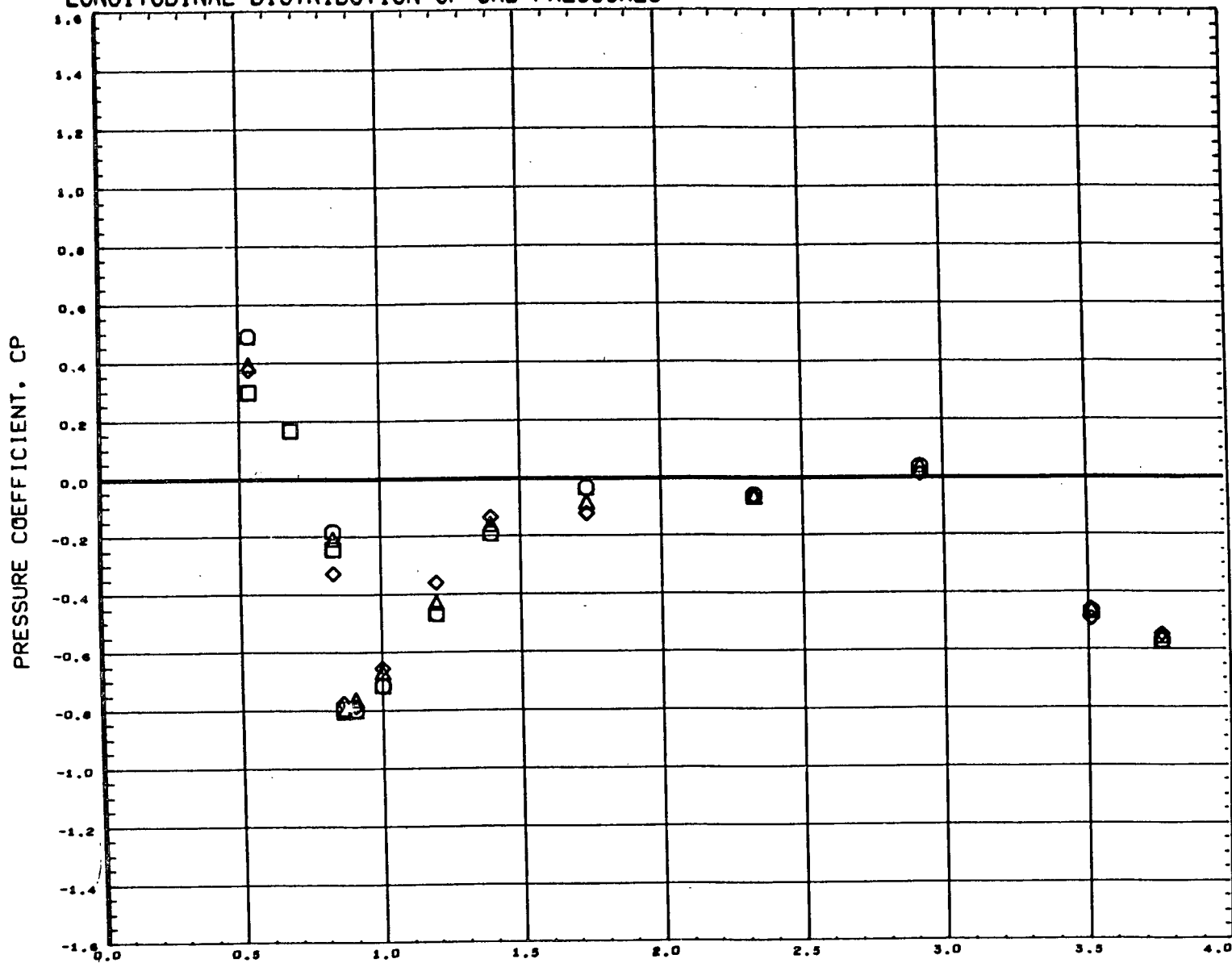
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300,000	- 10,000	0.950	BETA	0.000 ORBINC - 1.500
△	315,000			SRBCAP	0.025
◇	330,000				
□	345,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	- 4.000	0.950	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

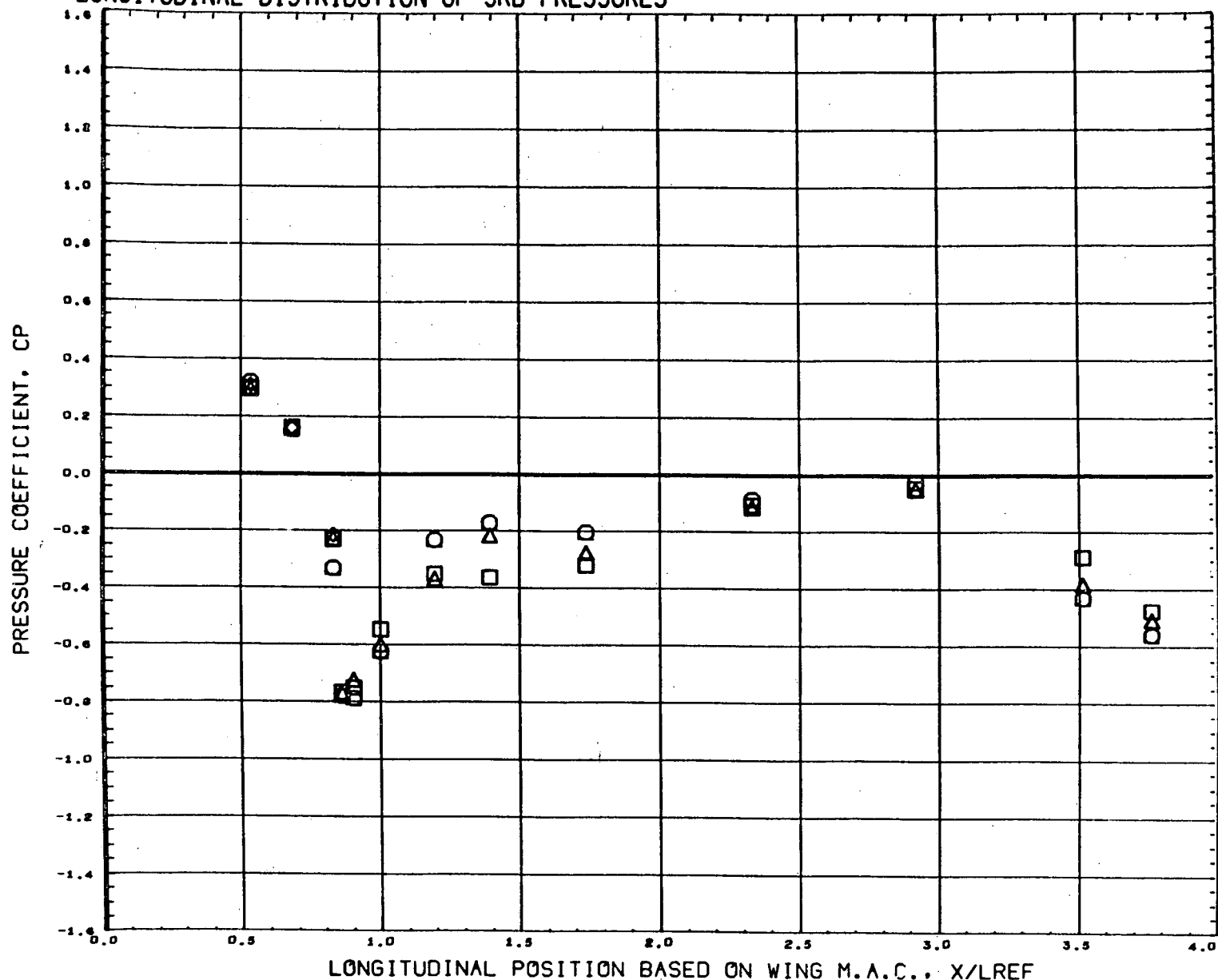
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 352

C5

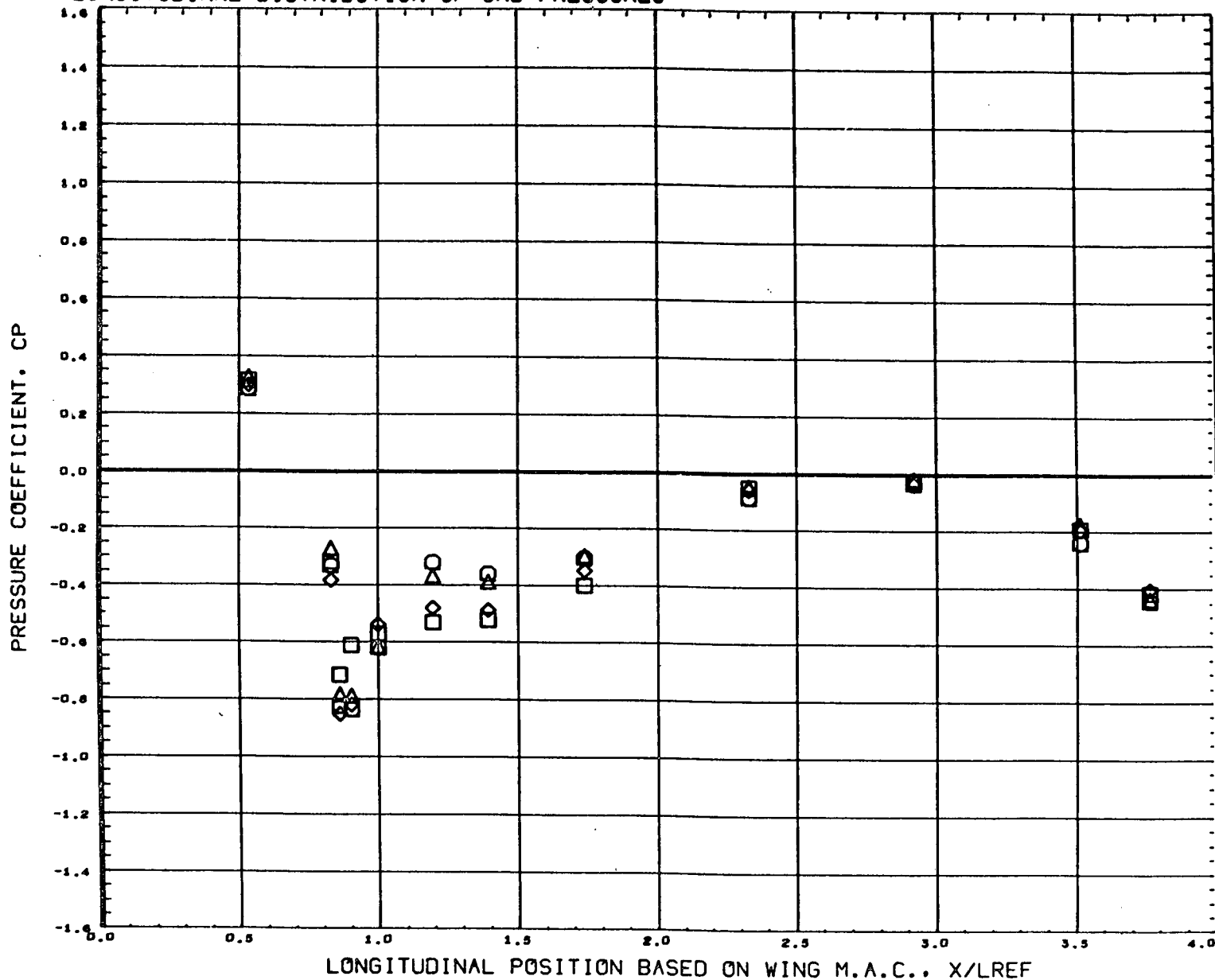
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60,000	- 4.000	0.950	BETA	0.000 ORBINC - 1.500
△	75,000			SRBGAP	0.025
◇	90,000				
□	105,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

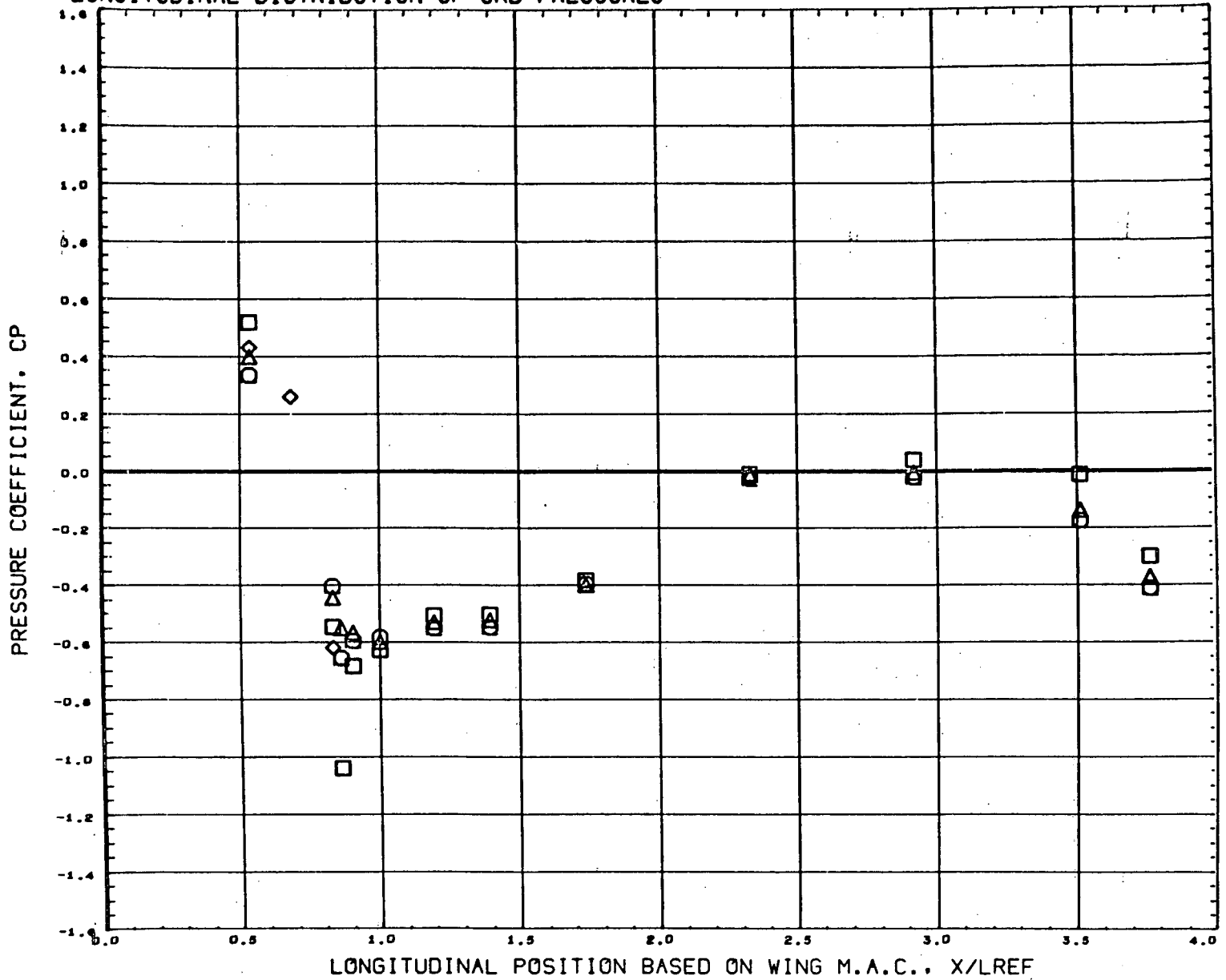
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120.000	- 4.000	0.950	BETA	0.000 ORBINC - 1.500
△	135.000			SRBCAP	0.025
◇	150.000				
□	165.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

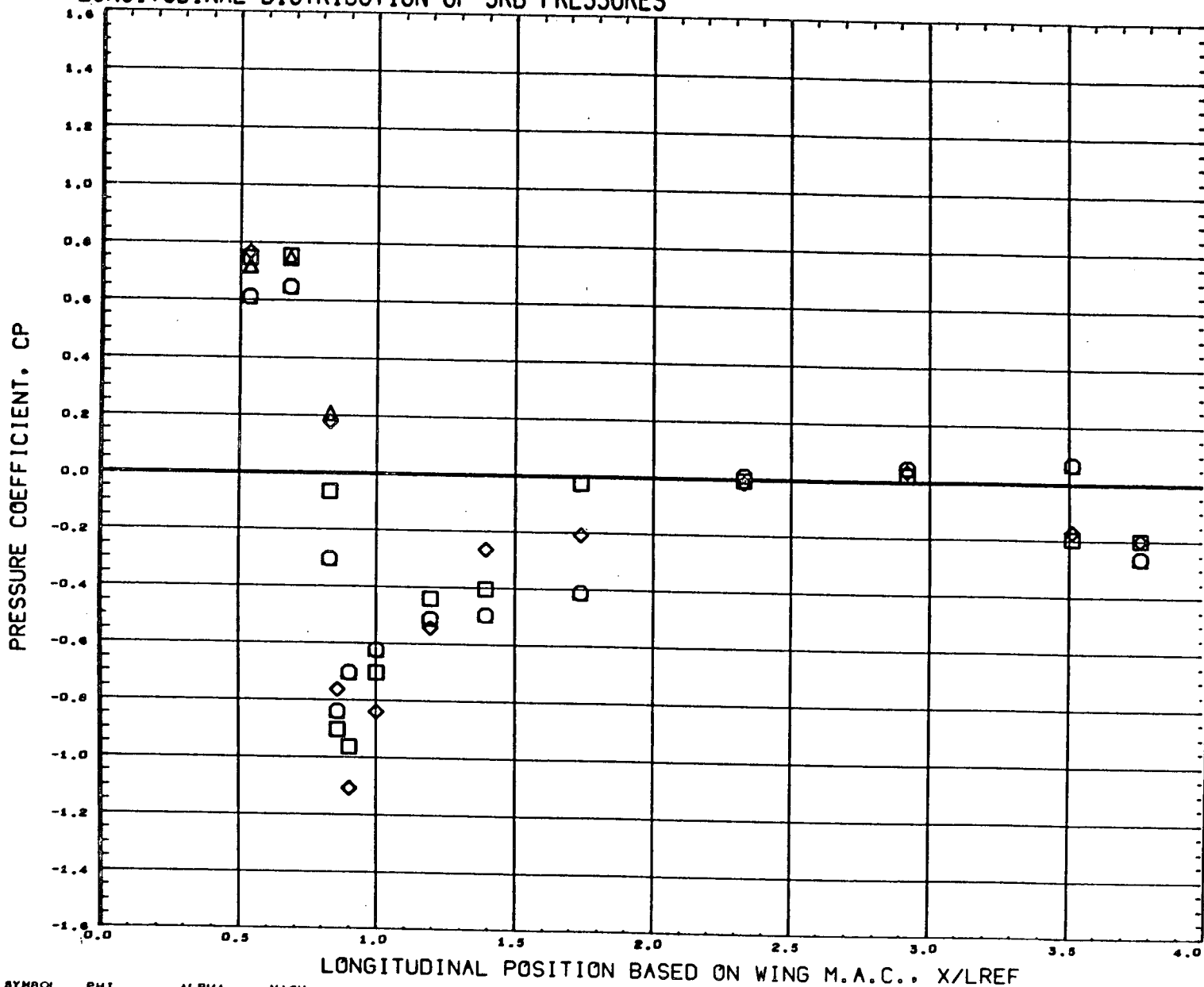
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	190.000	4.000	0.950	BETA	0.000
△	195.000			SRBGAP	0.025
◇	210.000			ORBINC	1.500
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 240,000 - 4.000 0.950
 △ 255,000
 ◇ 270,000
 □ 285,000

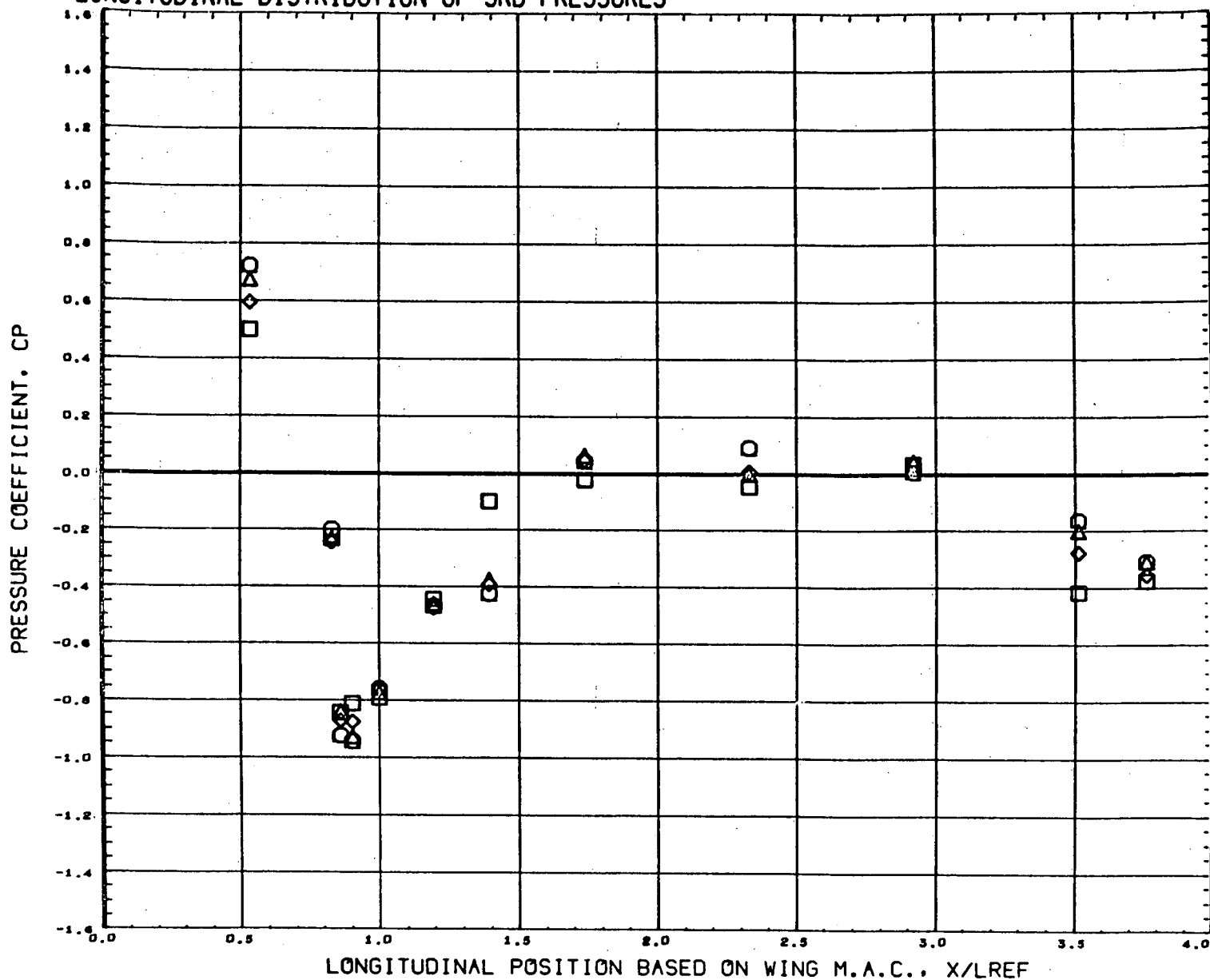
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 356

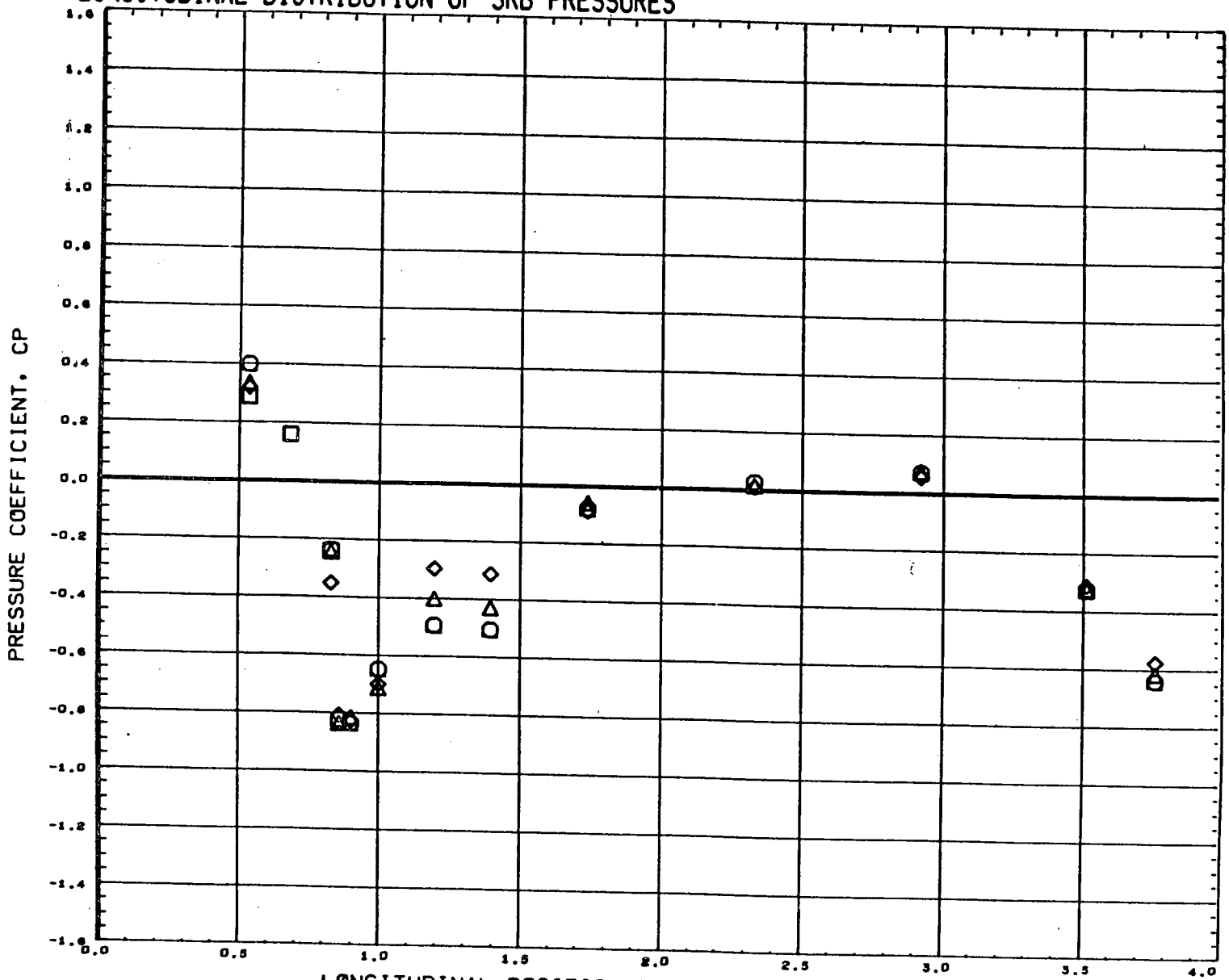
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300.000	- 4.000	0.950	BETA	0.000	ORBINC - 1.500
△	315.000			SRBGAP	0.025	
◇	330.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

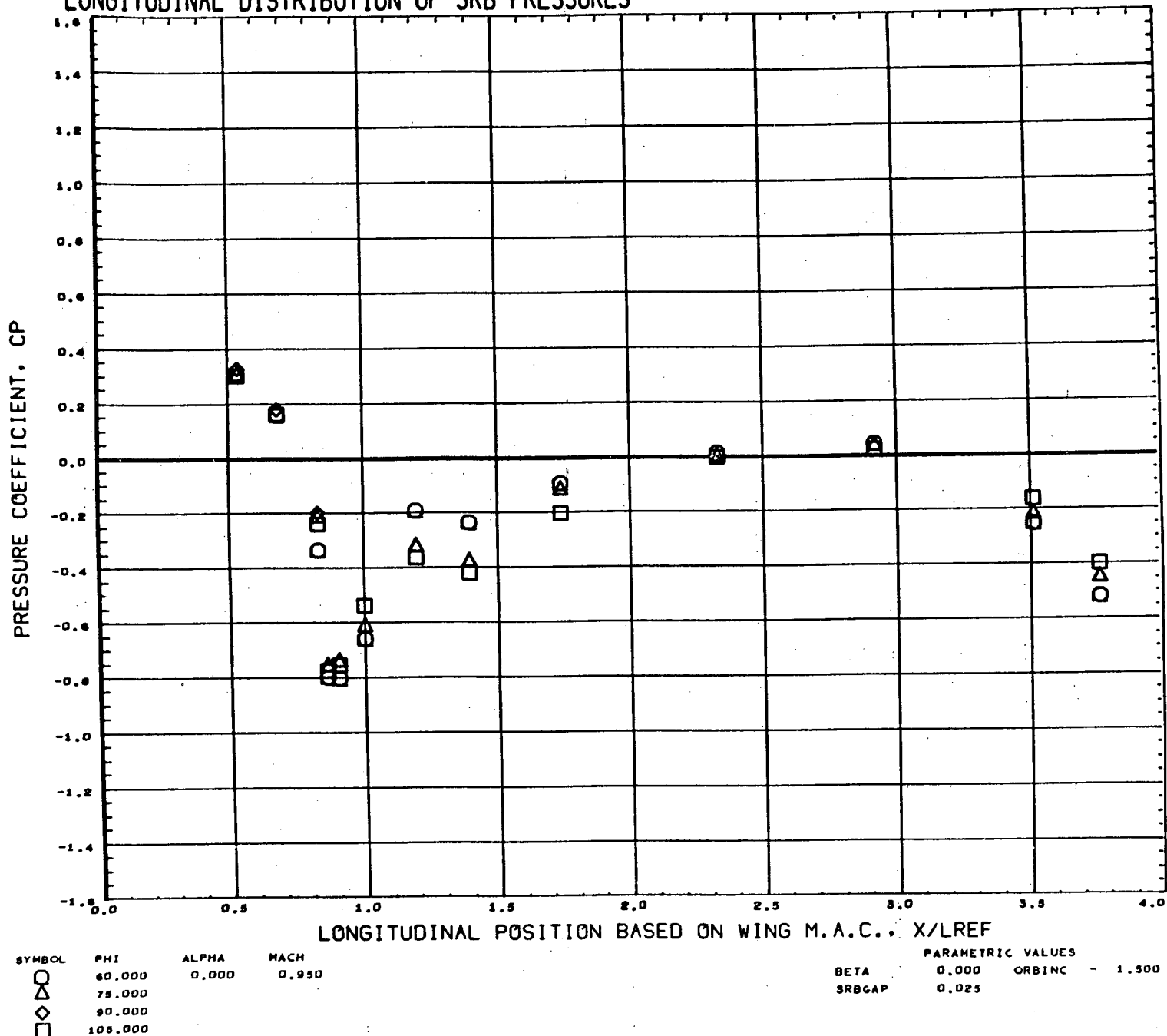
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	0.950	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

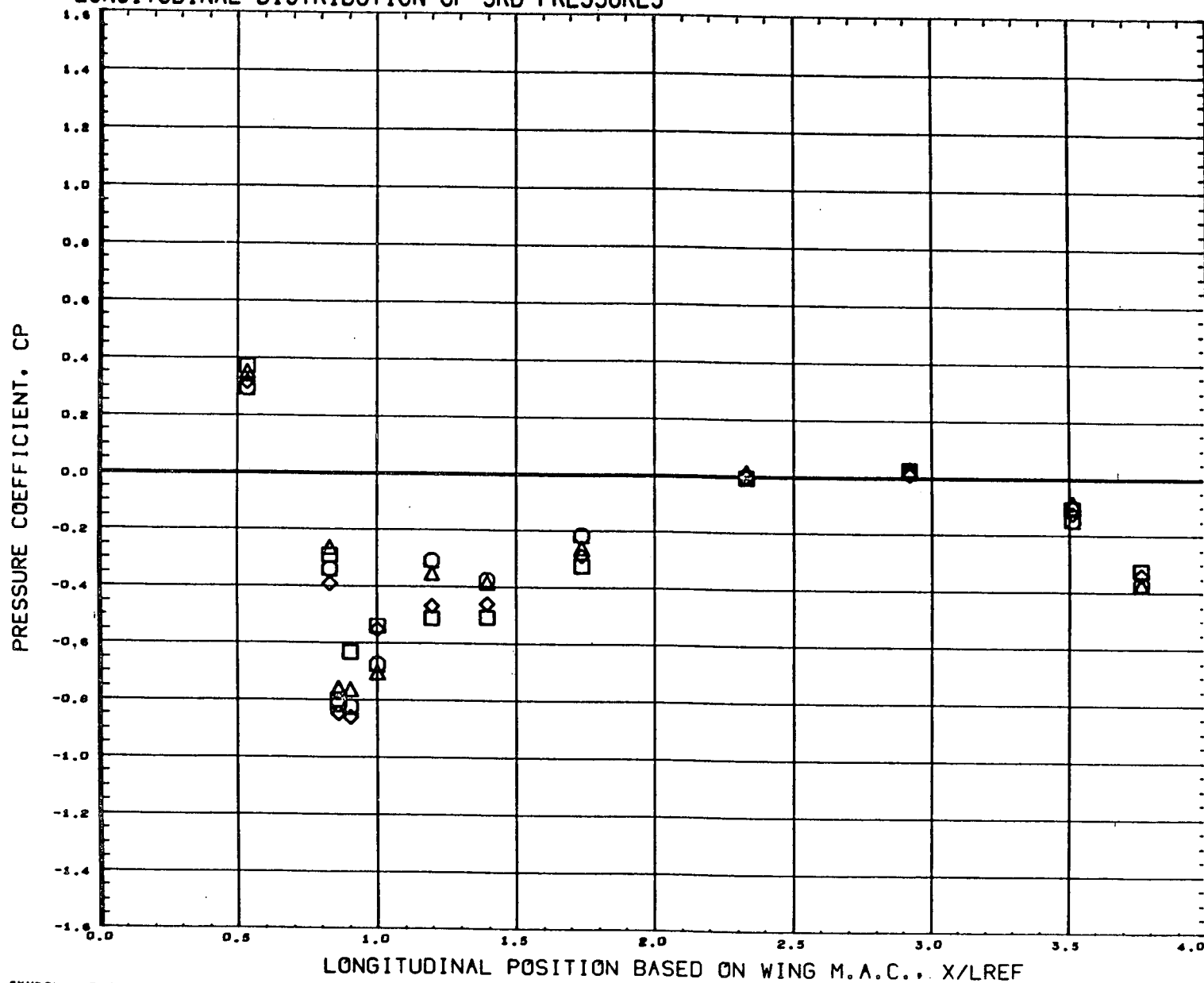


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 359

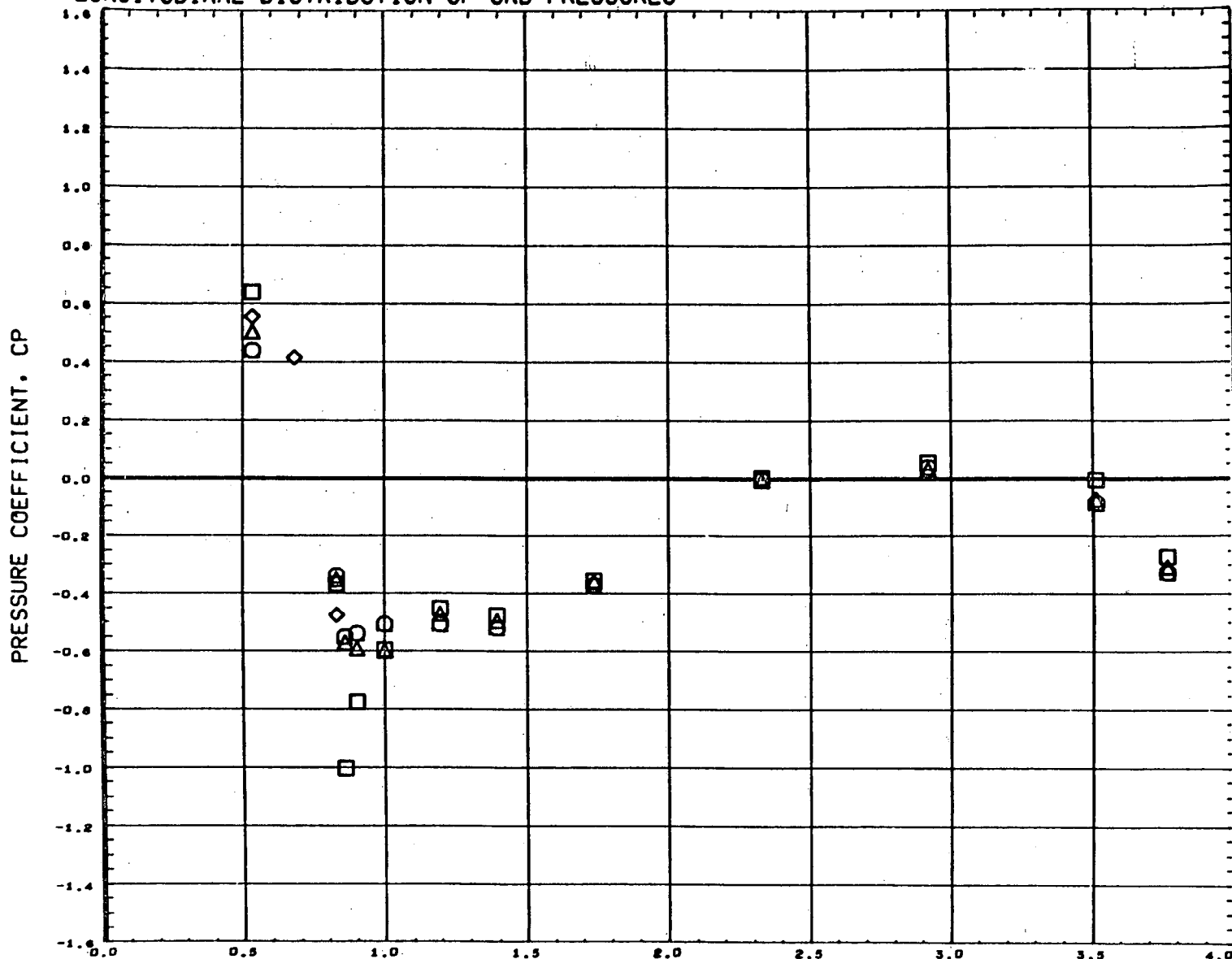
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	120.000	0.000	0.950	0.000	0.025	ORBINC - 1.500
△	135.000					
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

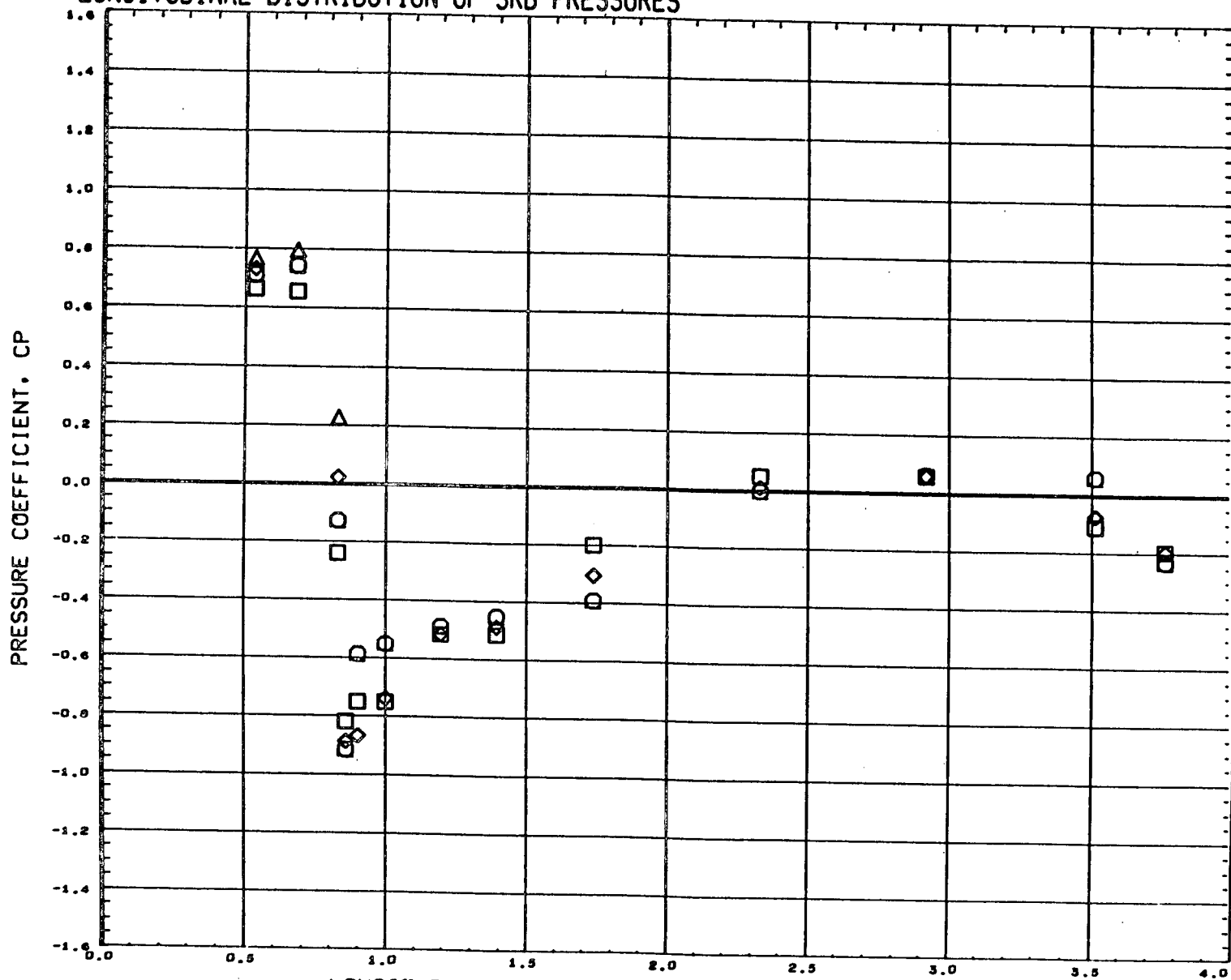
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	180.000	0.000	0.950	BETA	0.000 ORBINC - 1.500
△	195.000			SRBCAP	0.025
◇	210.000				
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

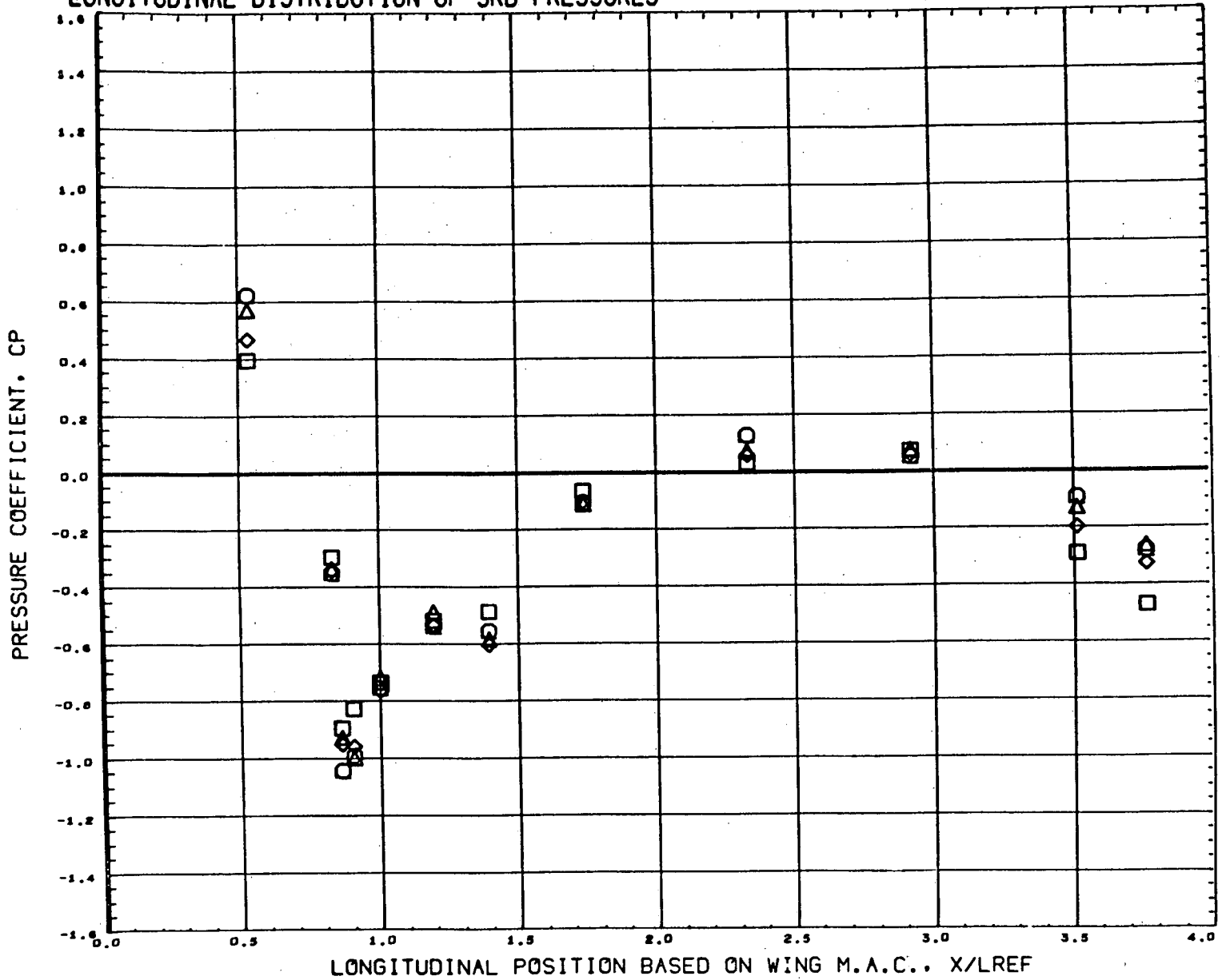
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	0.000	0.950	BETA	0.000	ORBINC - 1.500
△	255.000			SRBGAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=0.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 362

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL
 ○ 300,000
 △ 315,000
 ◇ 330,000
 □ 345,000

ALPHA 0.000
 MACH 0.950

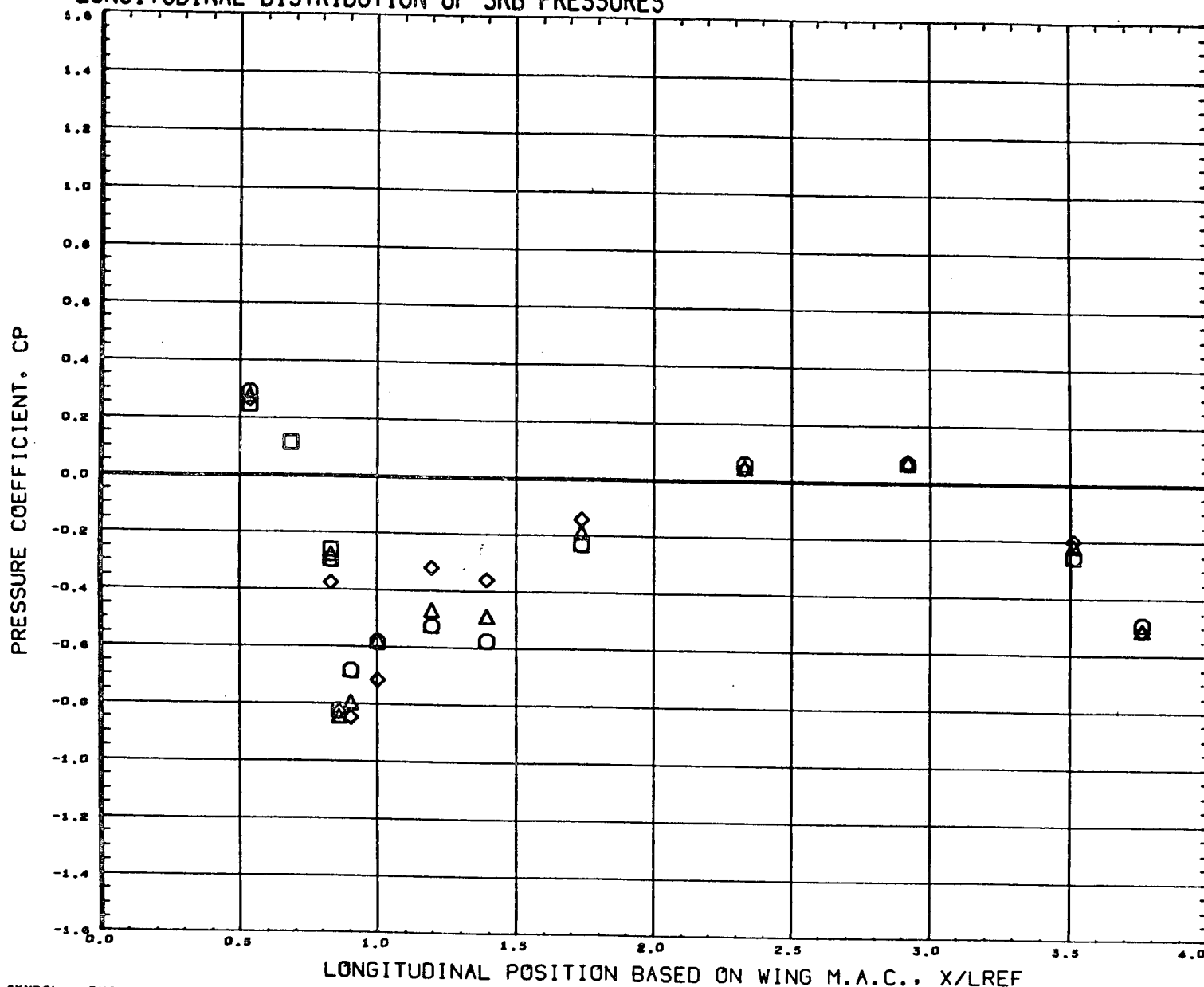
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 363

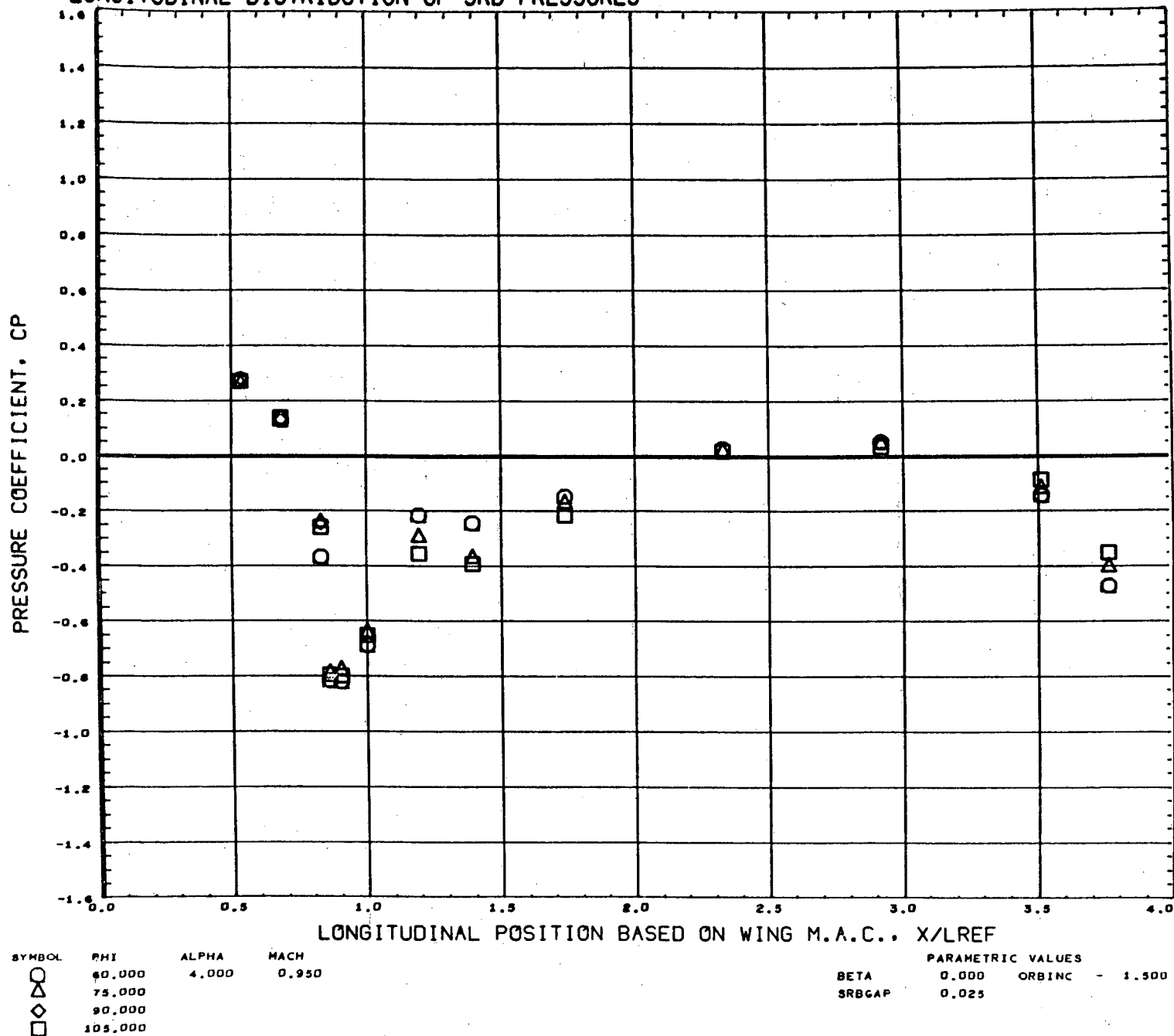
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	0.950	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

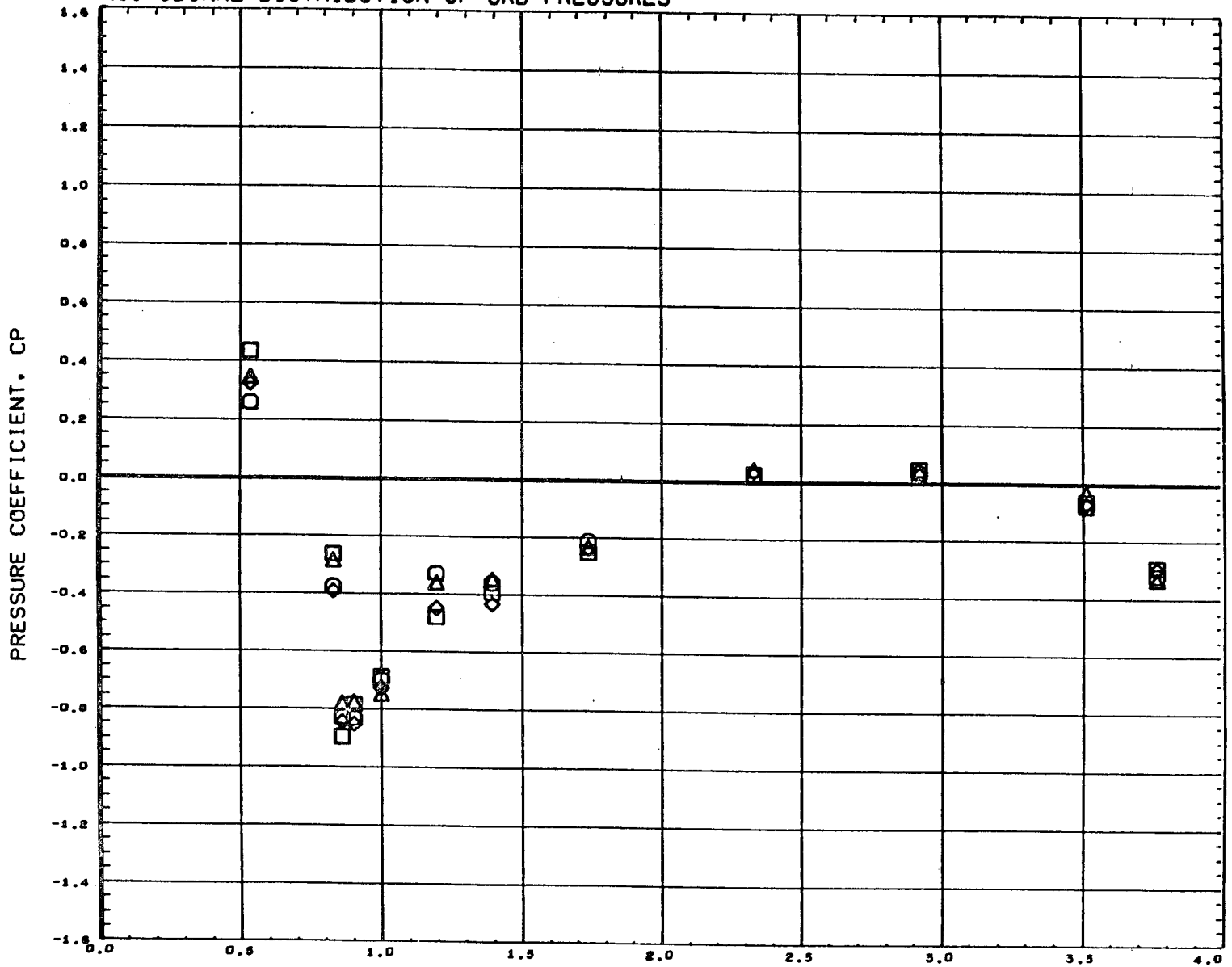


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 365

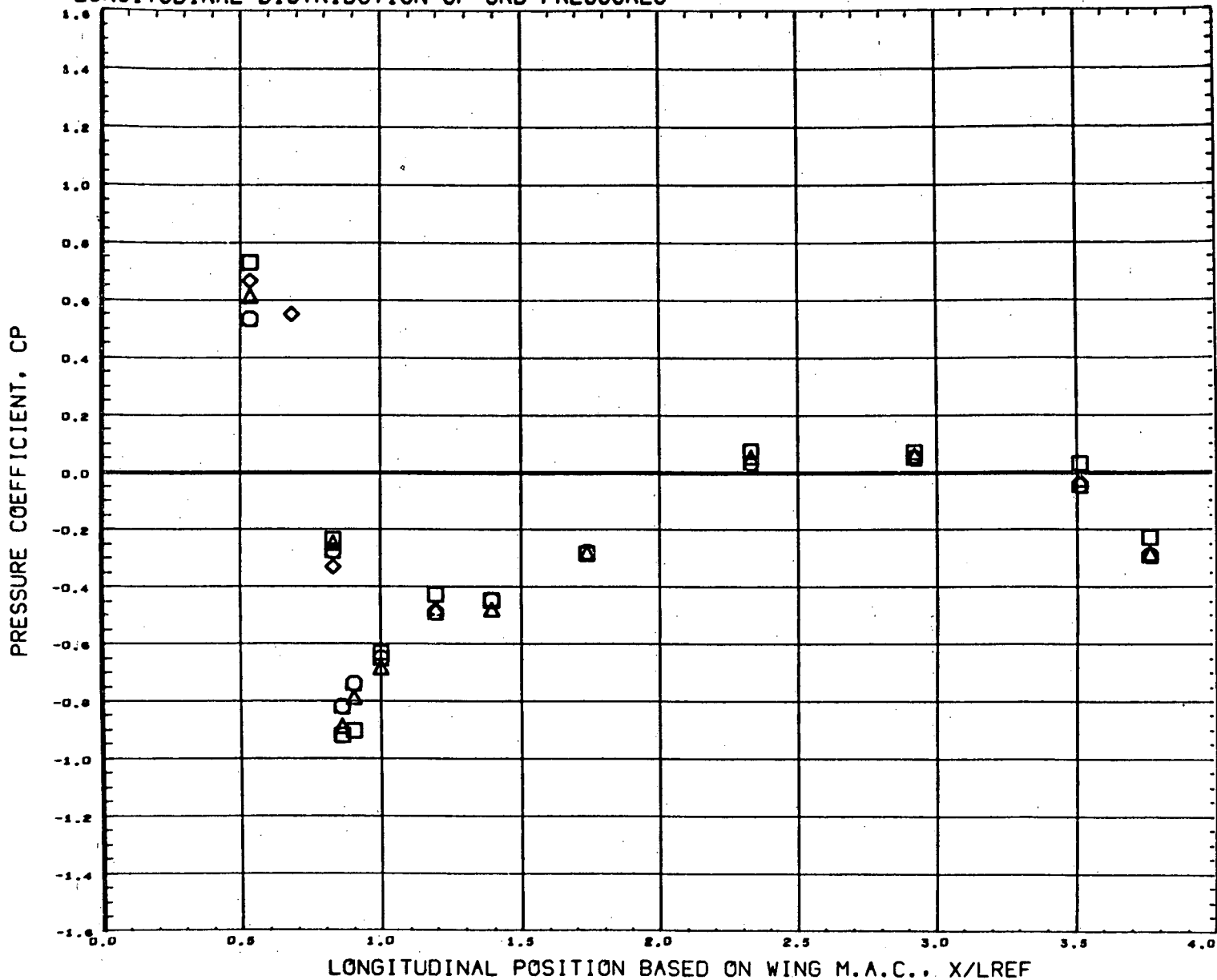
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120,000	4.000	0.950	BETA	0.000 ORBINC - 1.500
◇	135,000			SRBCAP	0.025
△	150,000				
□	165,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

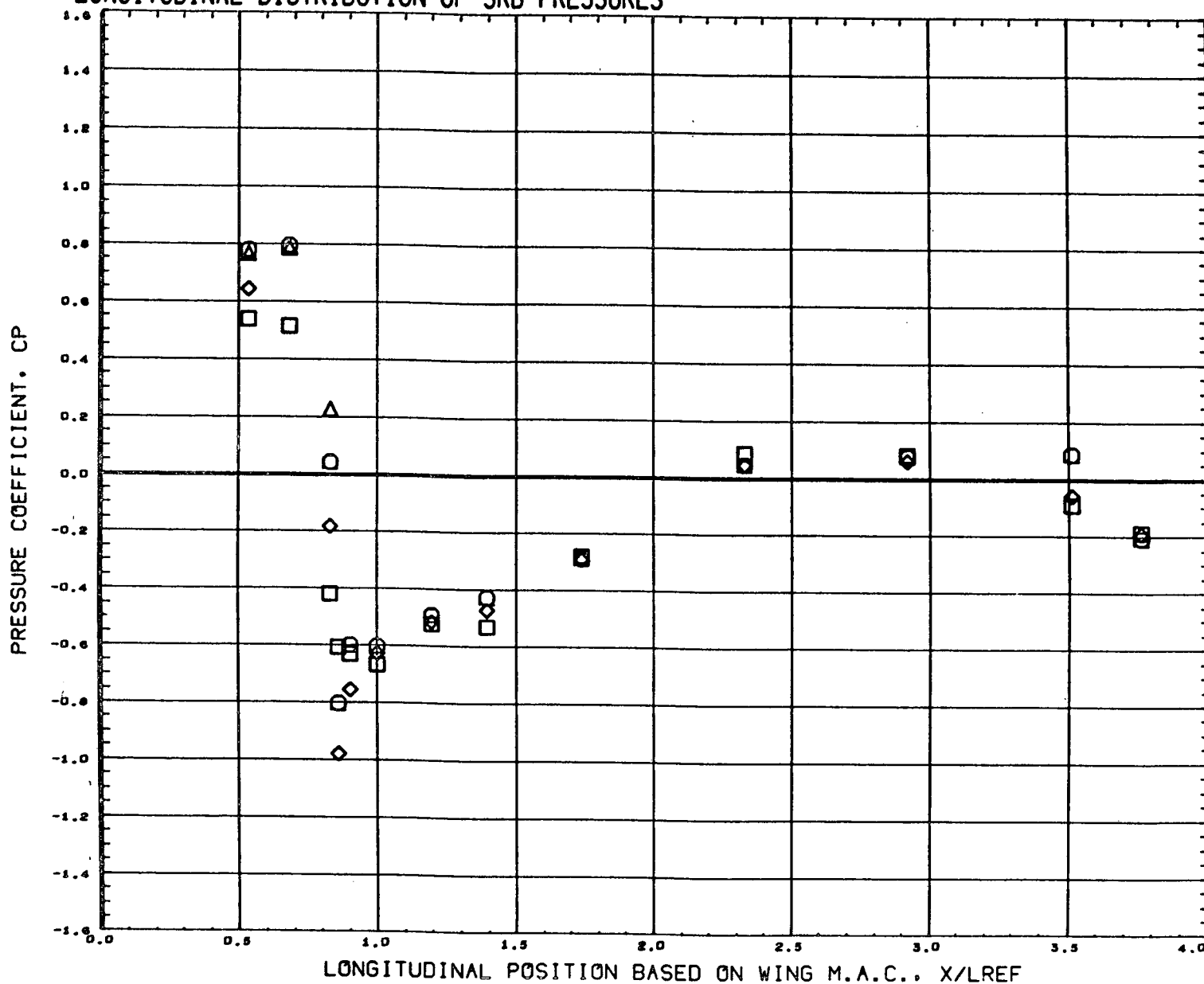


SYMBOL	PHI	ALPHA	MACH
○	180.000	4.000	0.950
△	195.000		
◇	210.000		
□	225.000		

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.359

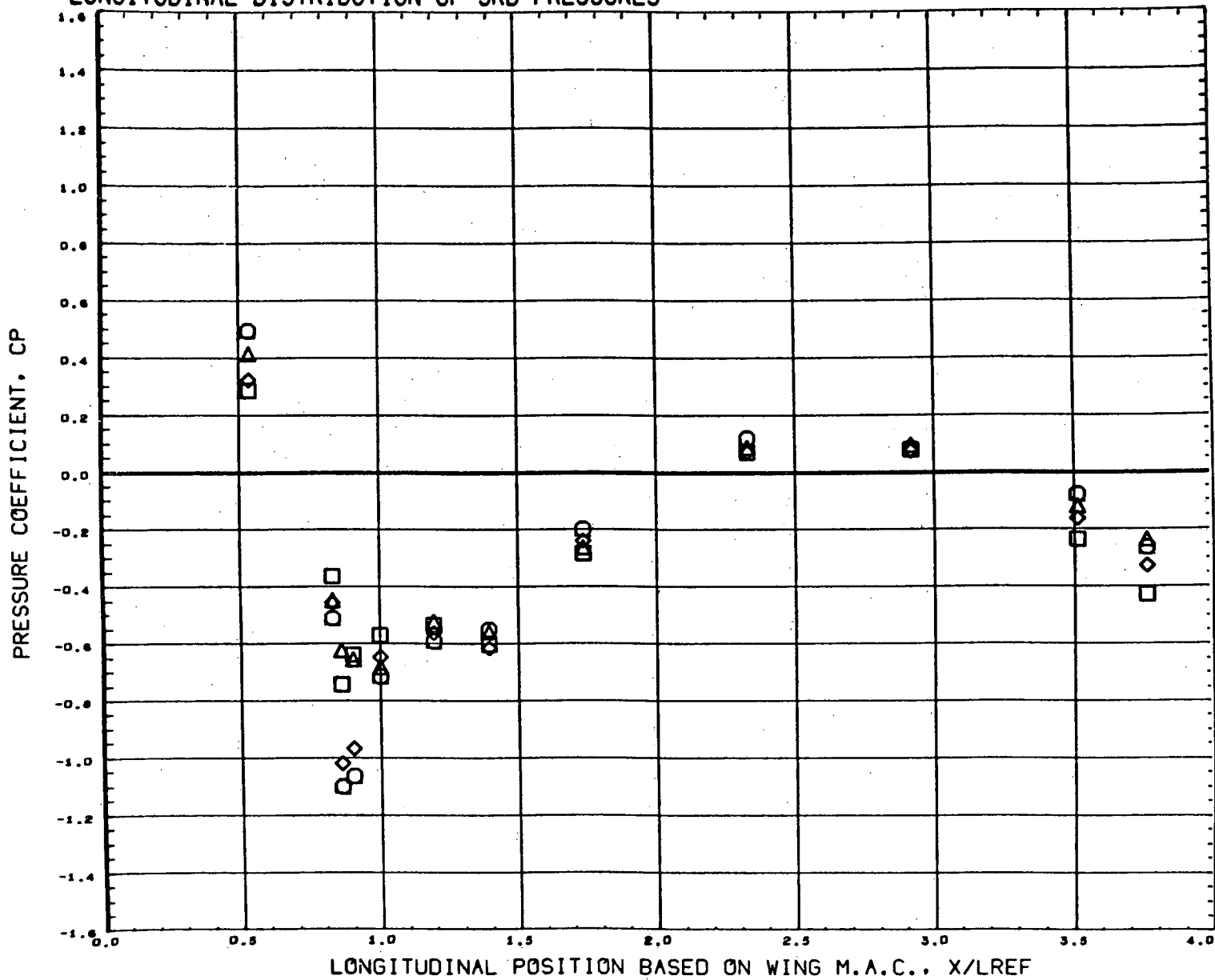
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	4.000	0.950	BETA	0.000	ORBINC - 1.500
△	255.000			SRBCAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

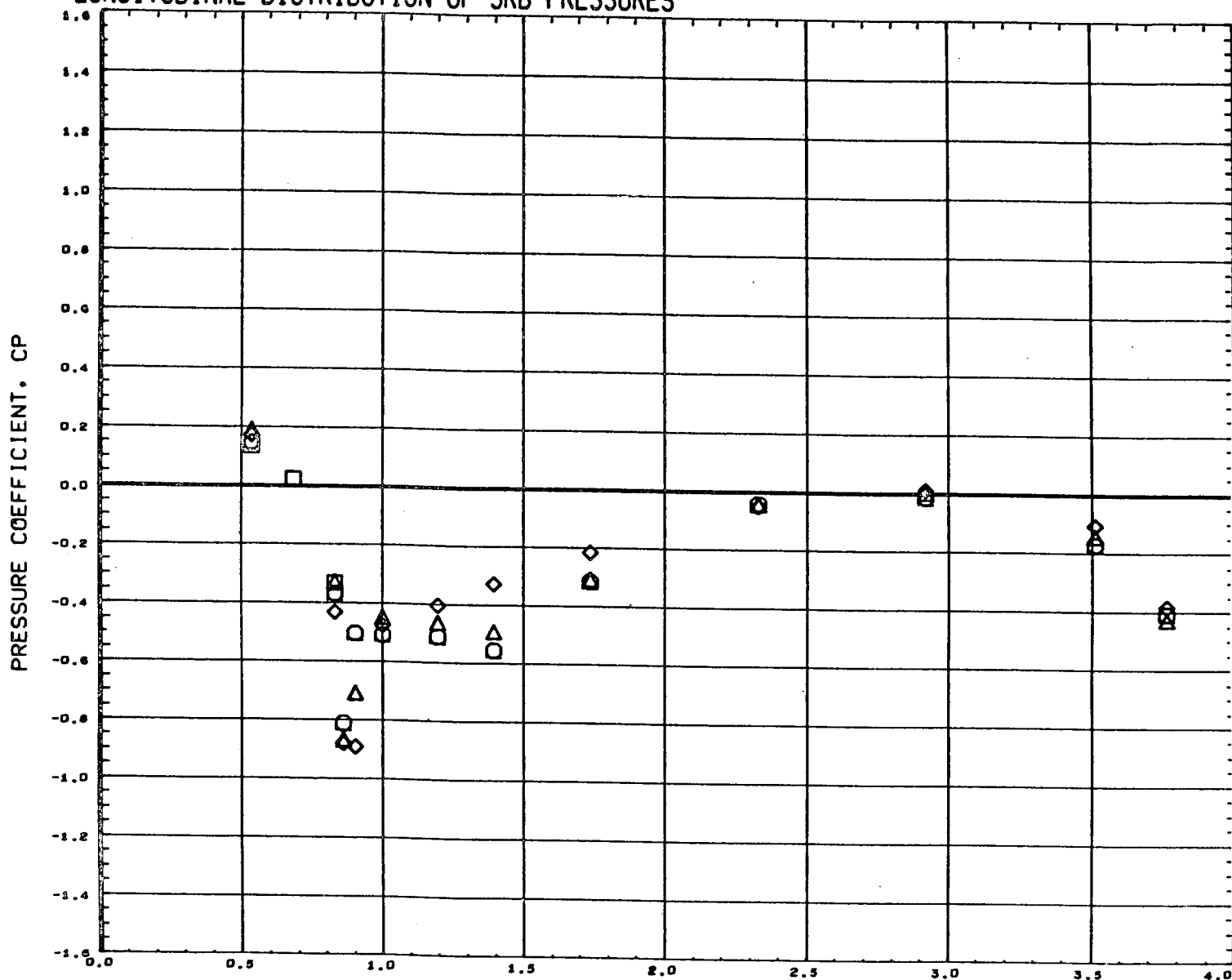
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300.000	4.000	0.950	BETA	0.000	ORBINC - 1.500
△	315.000			SRBCAP	0.025	
◇	330.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

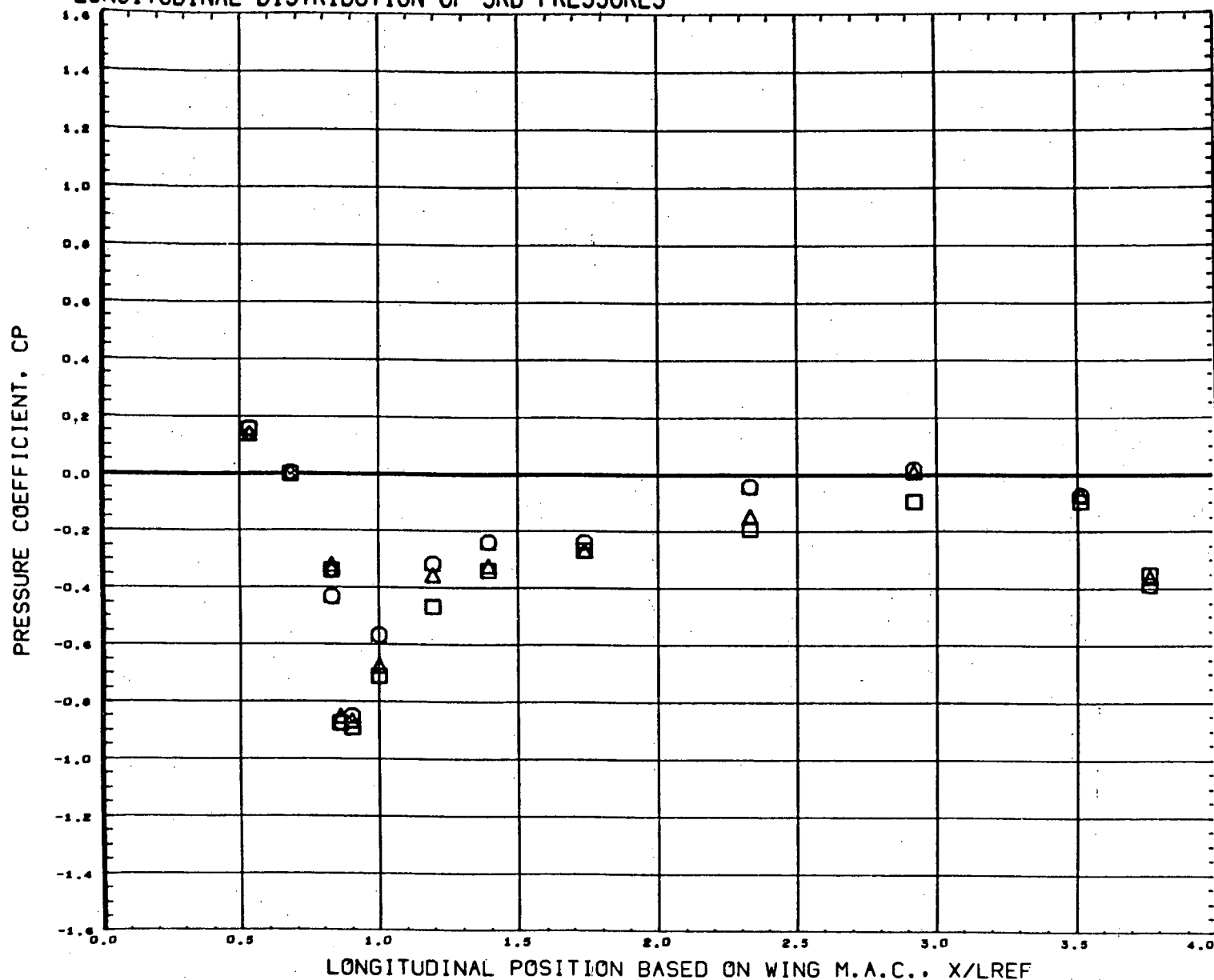
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	0.950	BETA	0.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

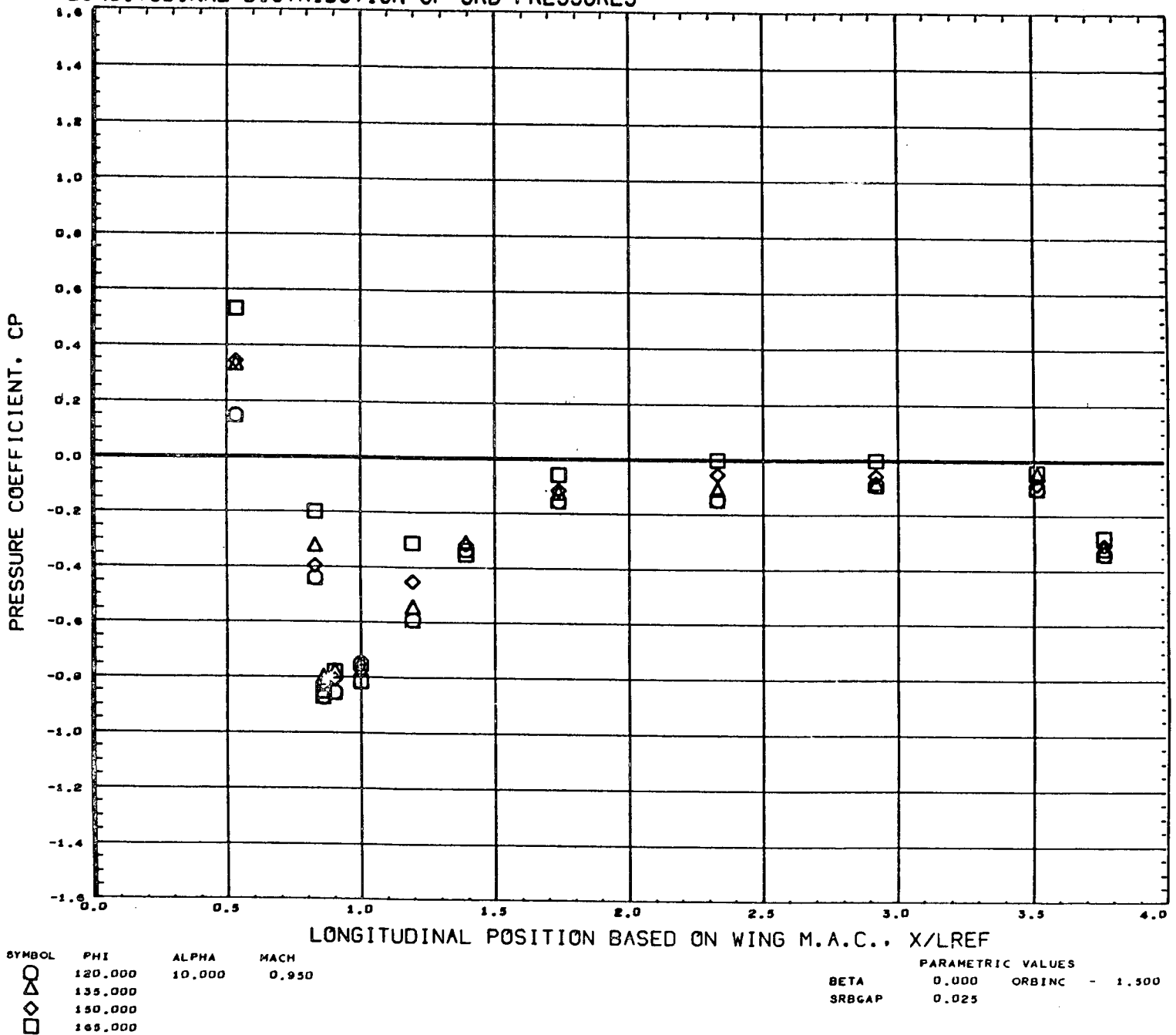


SYMBOL	PHI	ALPHA	MACH
○	60.000	10.000	0.950
△	75.000		
◇	90.000		
□	105.000		

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

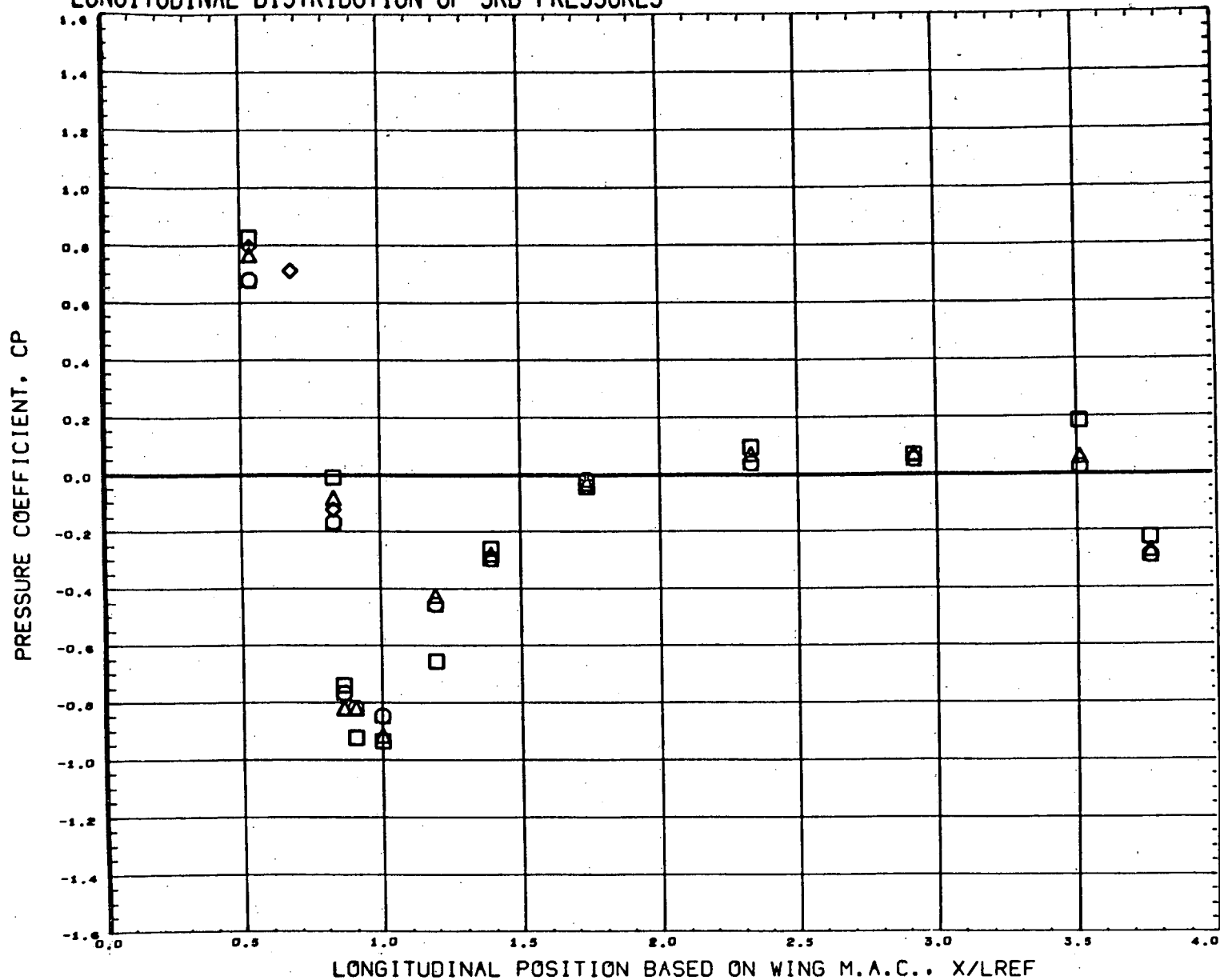
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



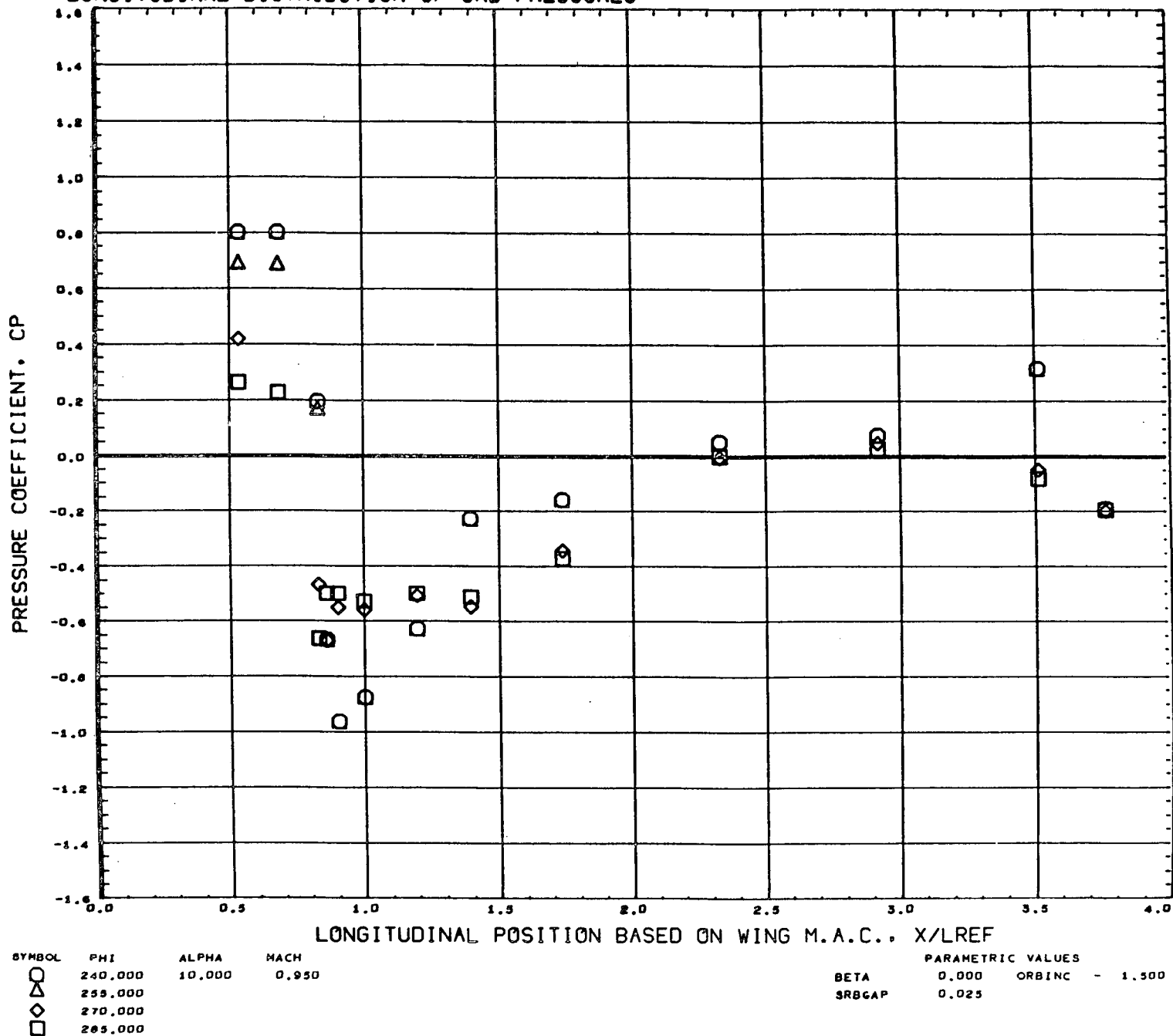
SYMBOL
 ○ 180,000
 △ 195,000
 ◇ 210,000
 □ 225,000

ALPHA 10,000
 MACH 0.950

PARAMETRIC VALUES
 BETA 0.000 ORBINC 1.500
 SRBGAP 0.025

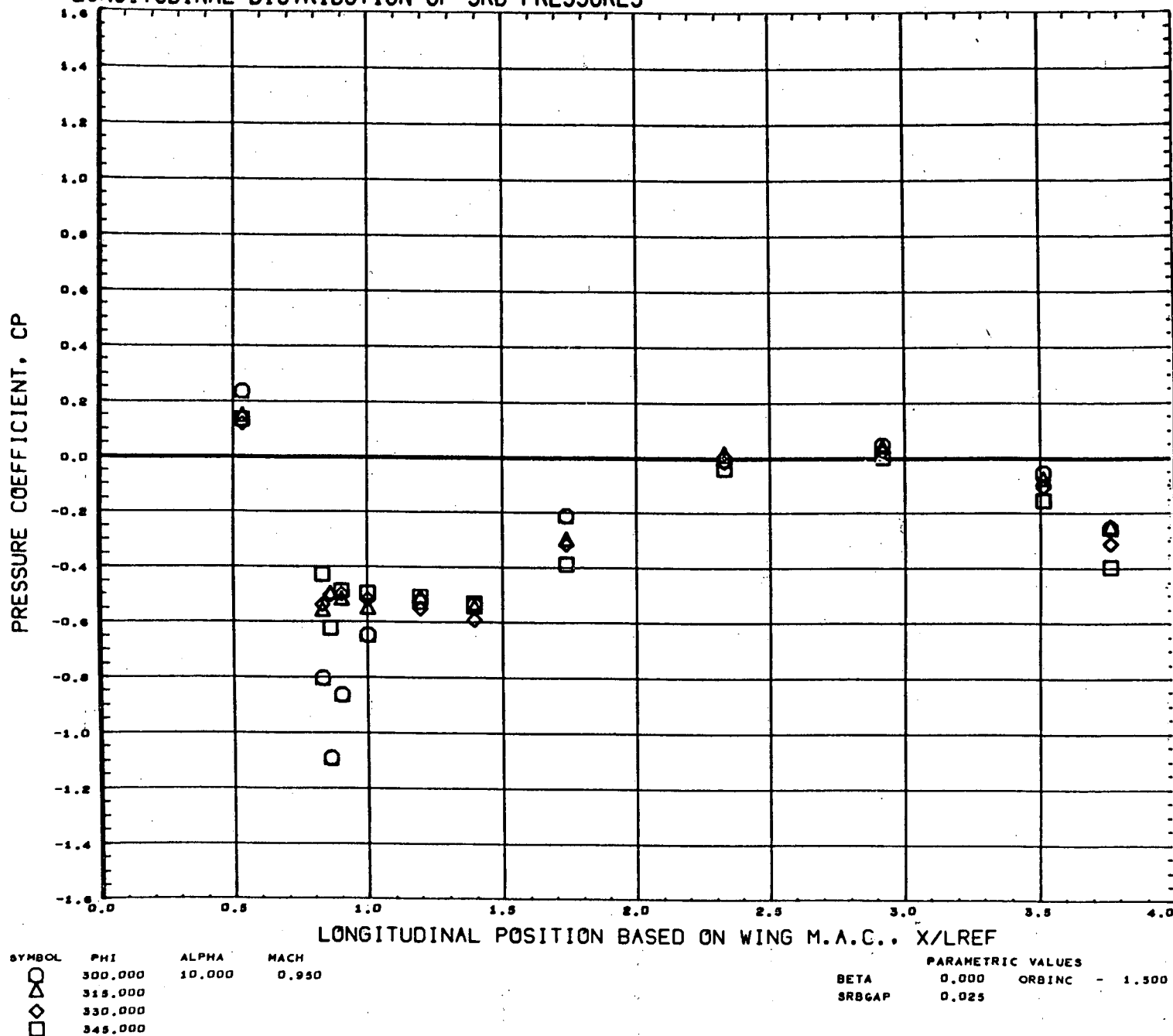
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



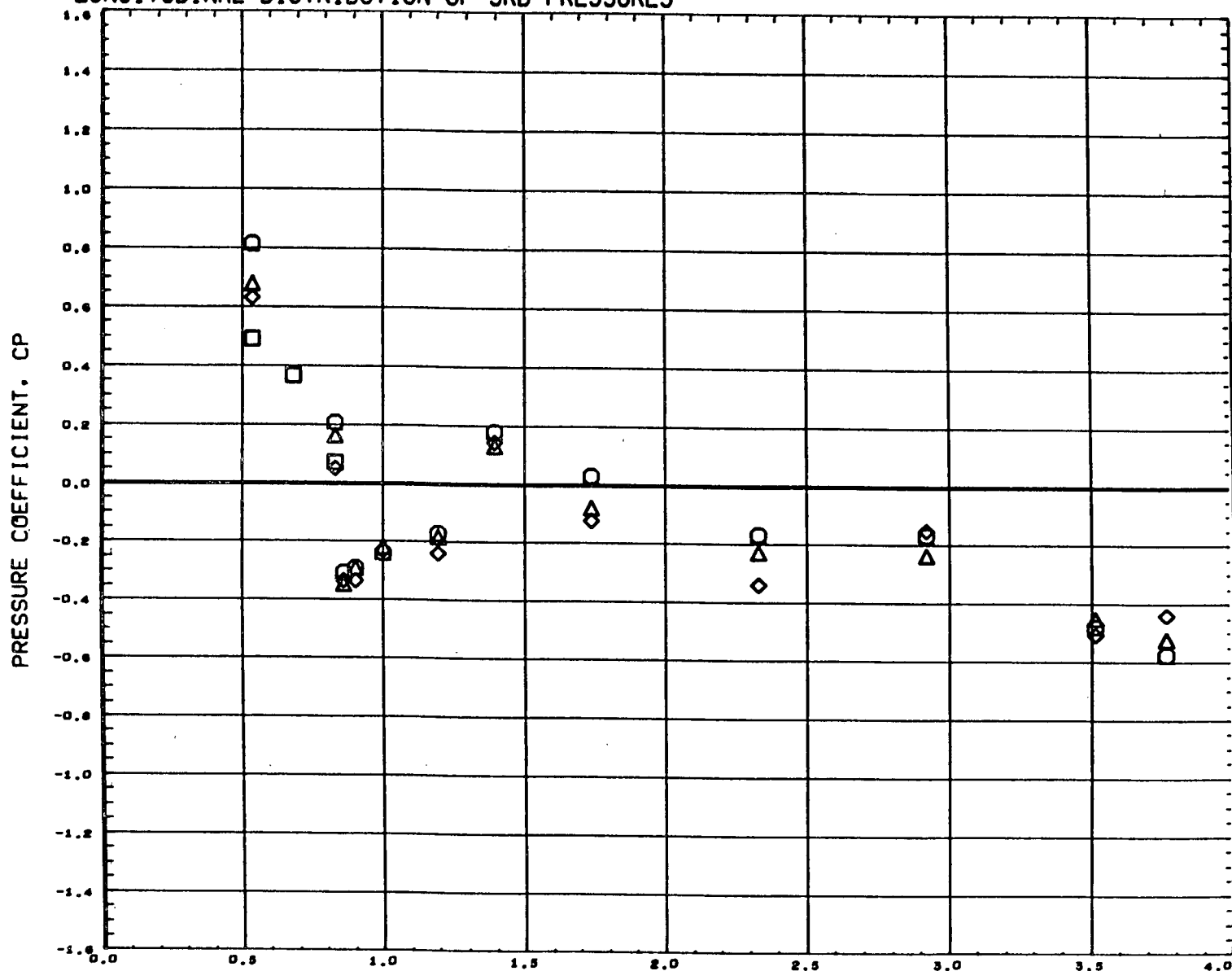
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



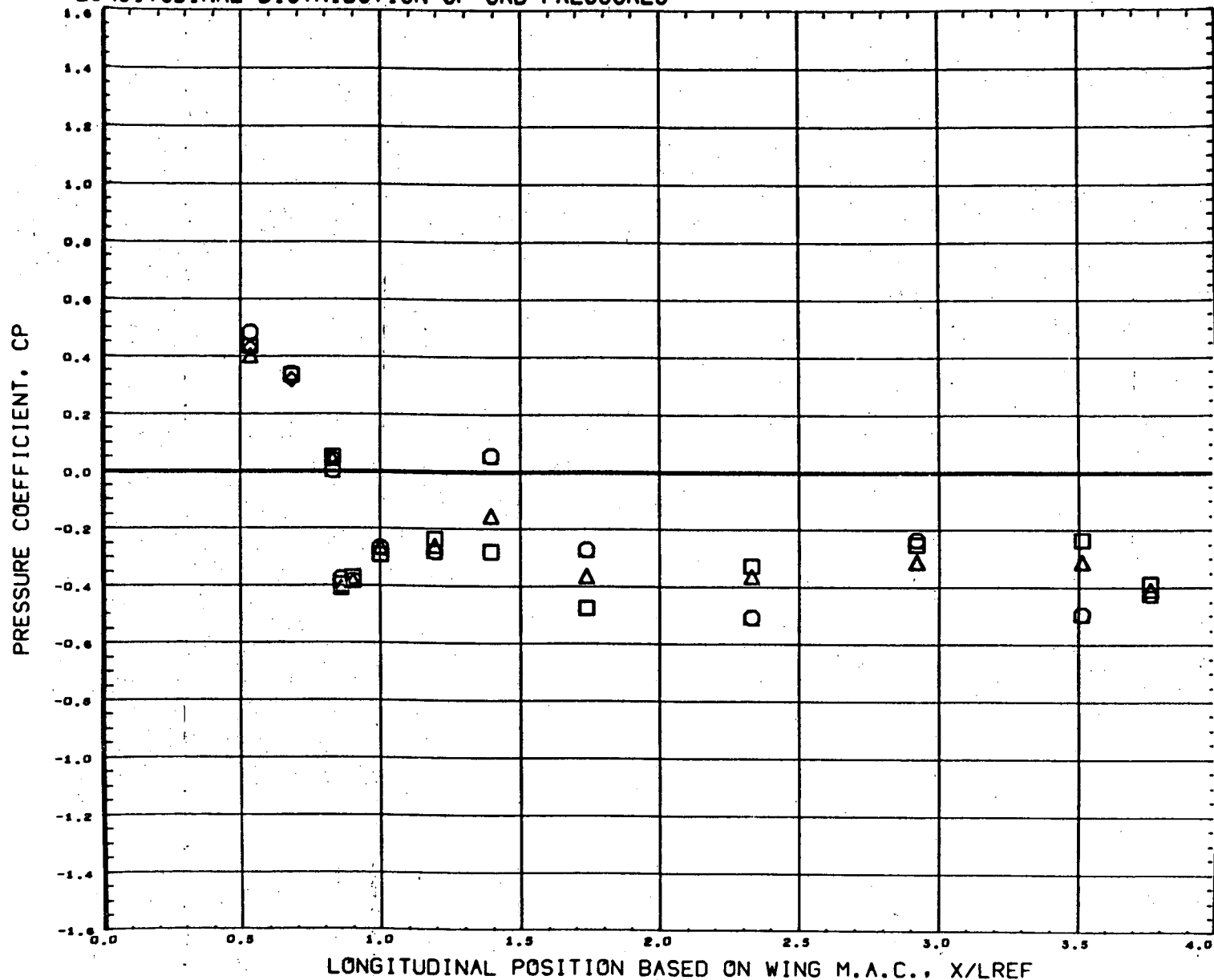
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	0.000	- 10.000	1.200
△	15.000		
◇	30.000		
□	45.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

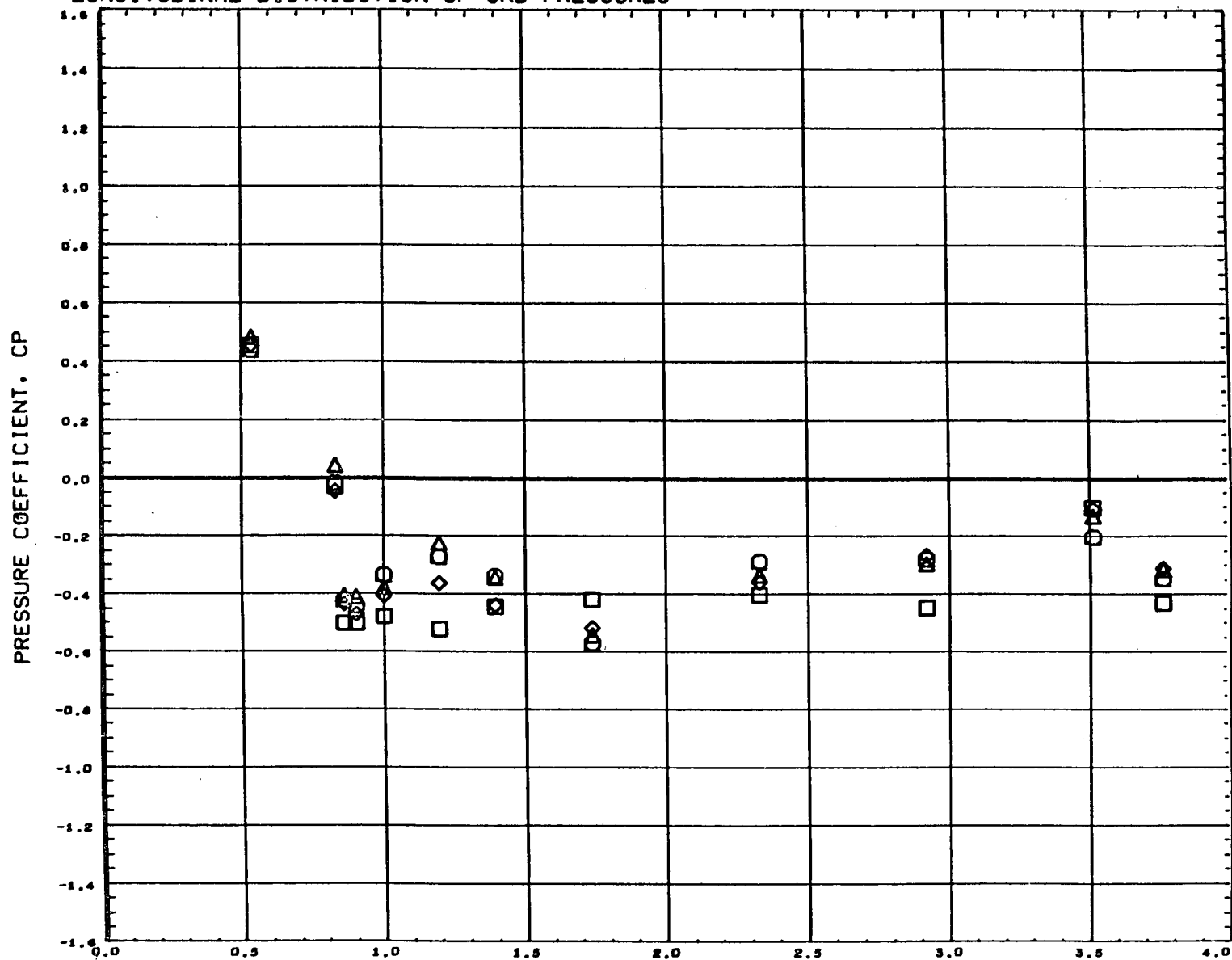


SYMBOL PHI ALPHA MACH
 ○ 60,000 - 10,000 1.200
 ◇ 75,000
 △ 90,000
 □ 105,000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

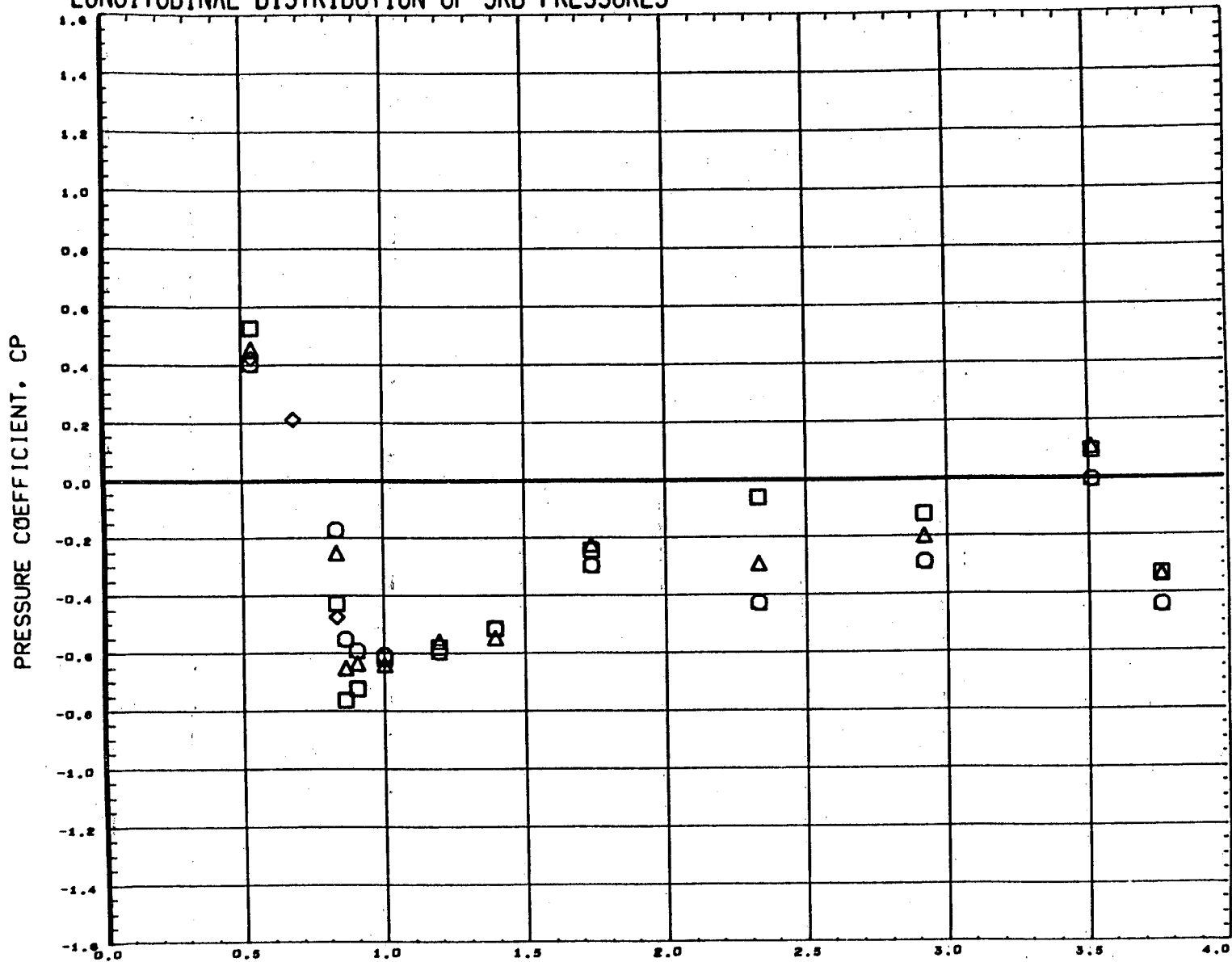


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120,000	- 10.000	1.200	BETA	0.000 ORBINC - 1.500
△	135,000			SRBGAP	0.025
◇	150,000				
□	165,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



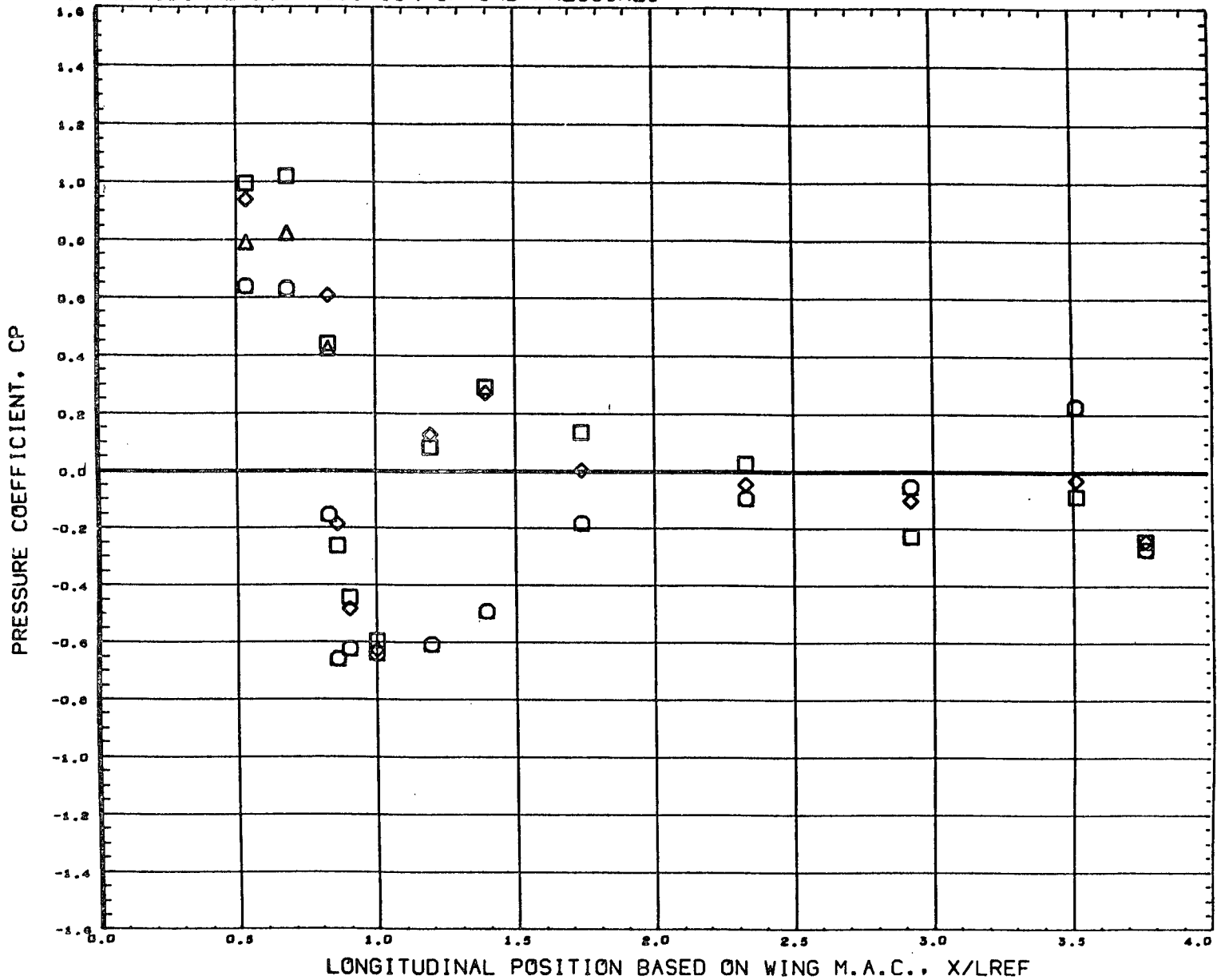
SYMBOL PHI ALPHA MACH
 ○ 180,000 - 10,000 1.200
 △ 195,000
 ◇ 210,000
 □ 225,000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

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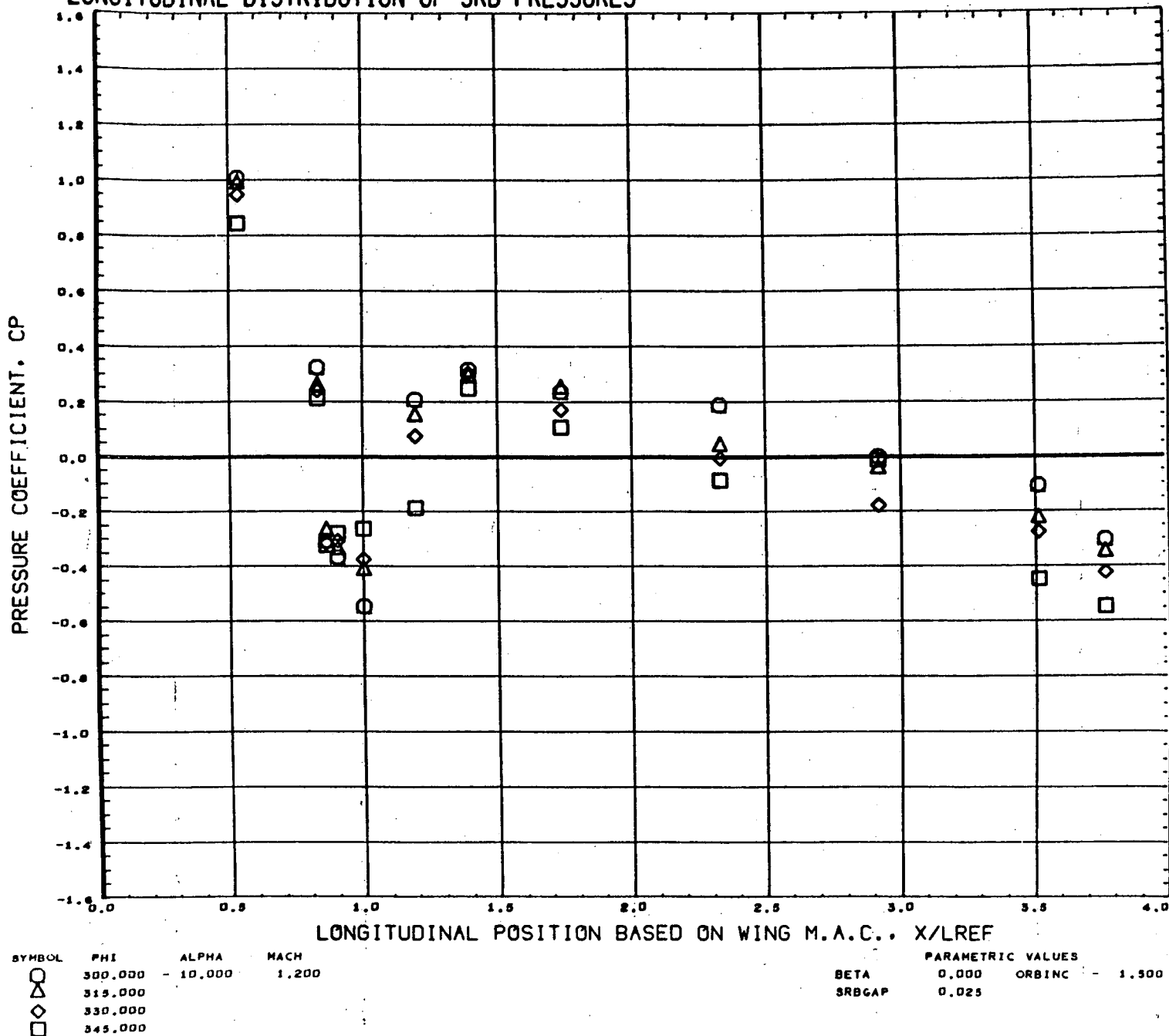
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240,000	- 10.000	1.200	BETA	0.000	ORBINC - 1.500
△	255,000			SRBGAP	0.025	
◇	270,000					
□	285,000					

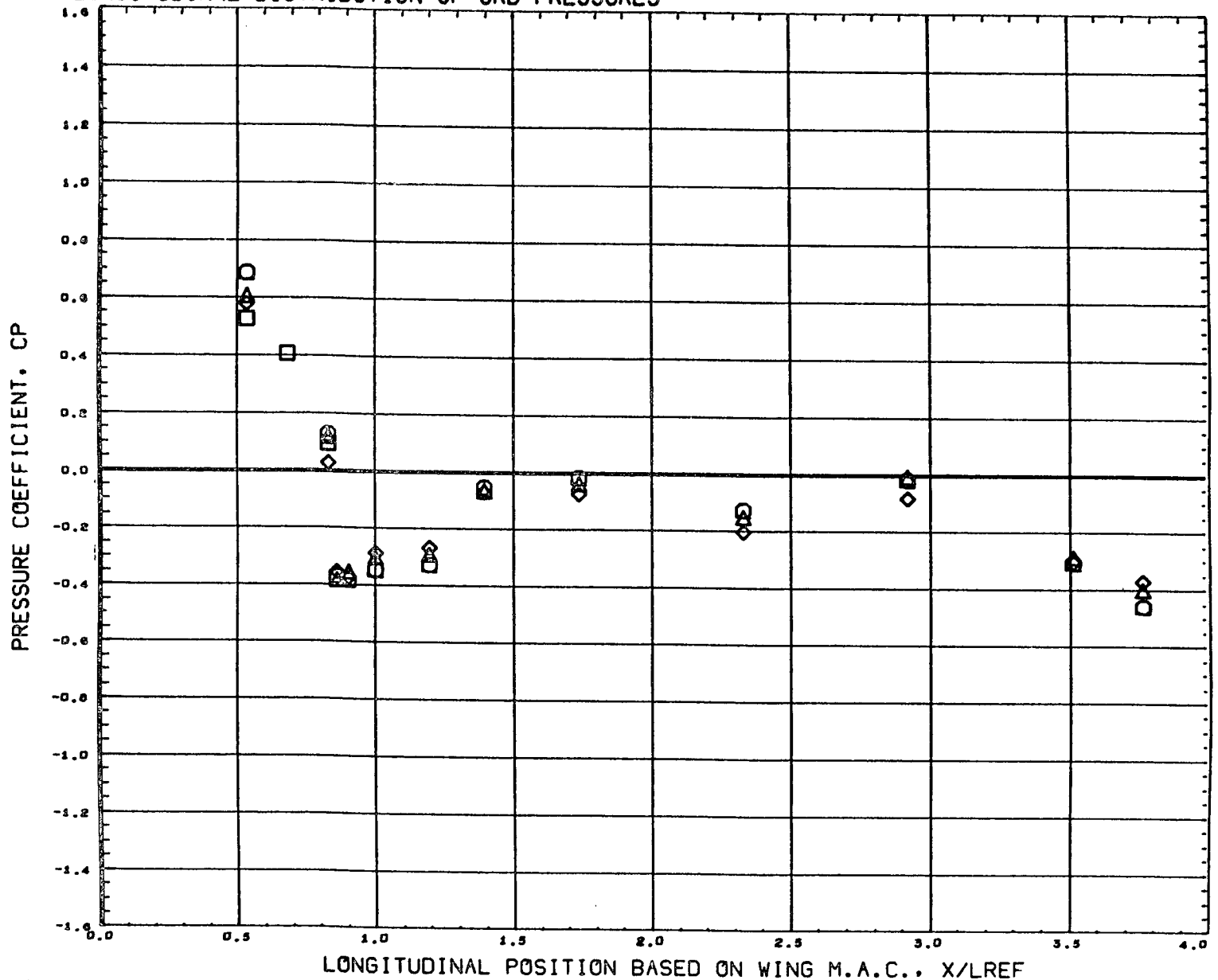
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

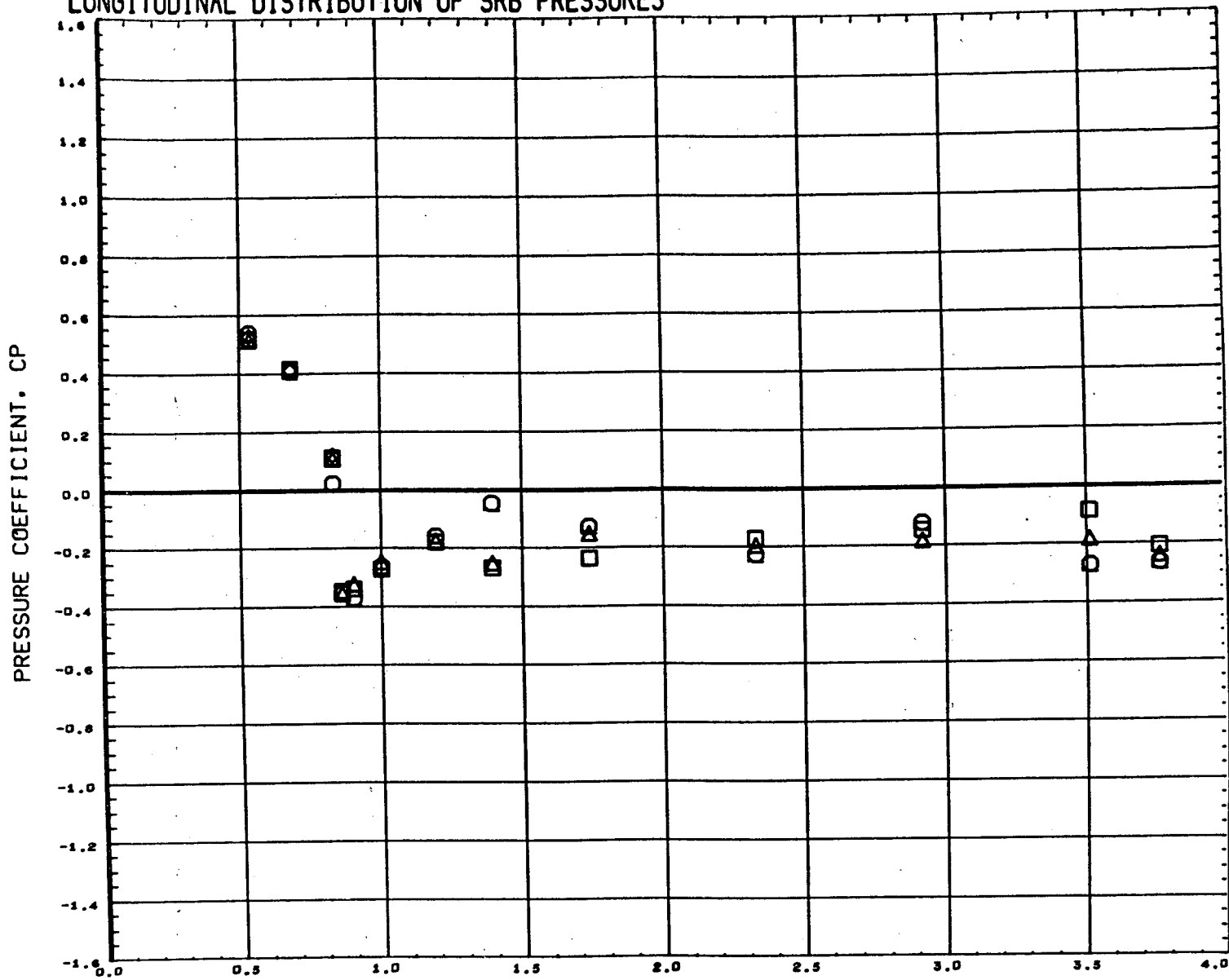
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PARAMETRIC VALUES		
	PHI	ALPHA	MACH
	0.000	- 4.000	1.200
	15.000		
	30.000		
	45.000		
	BETA	0.000 ORBINC - 1.500	
	SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

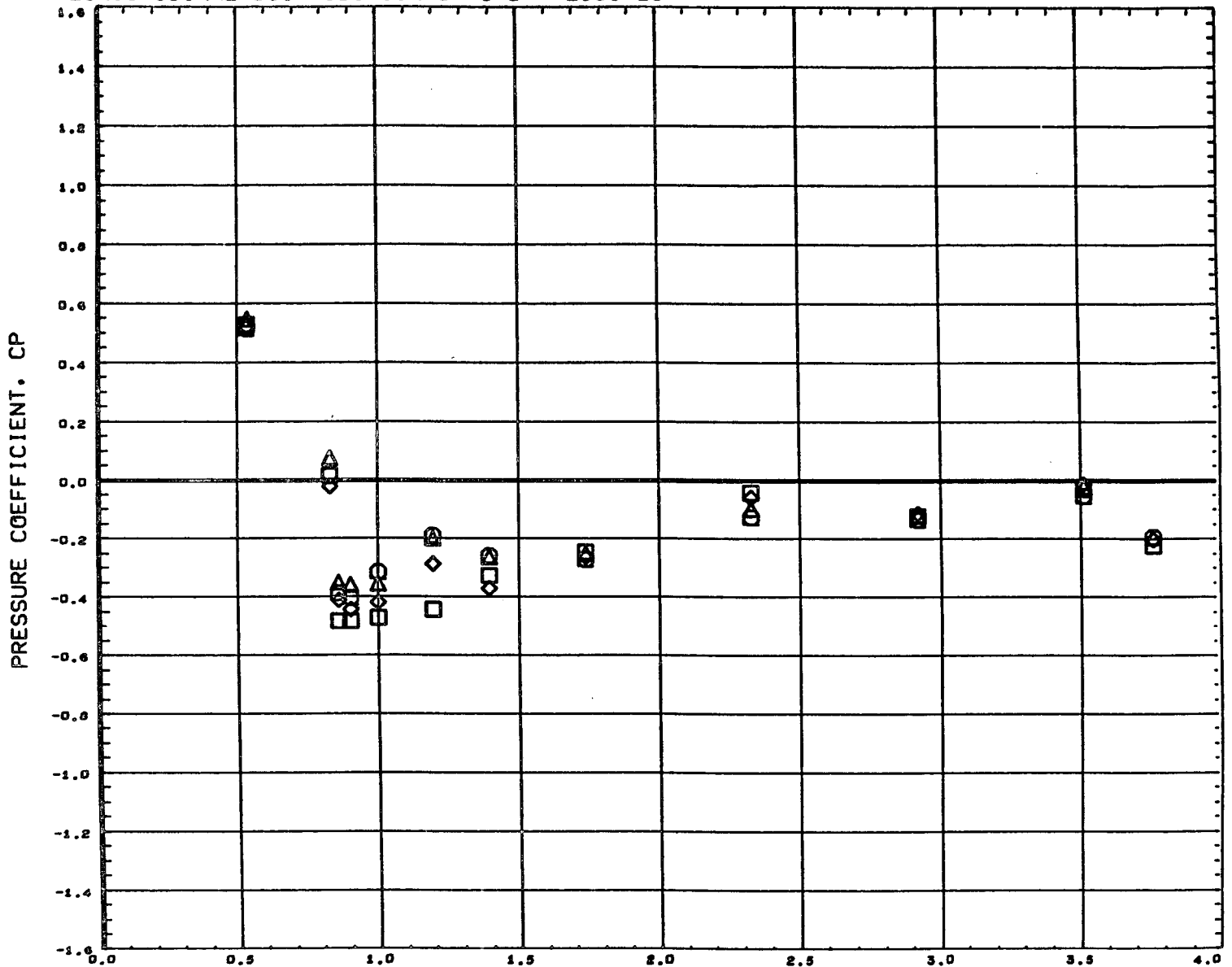
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	4.000	1.200	BETA	0.000 ORBINC - 1.500
△	75.000			SRBGAP	0.025
◇	90.000				
□	105.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

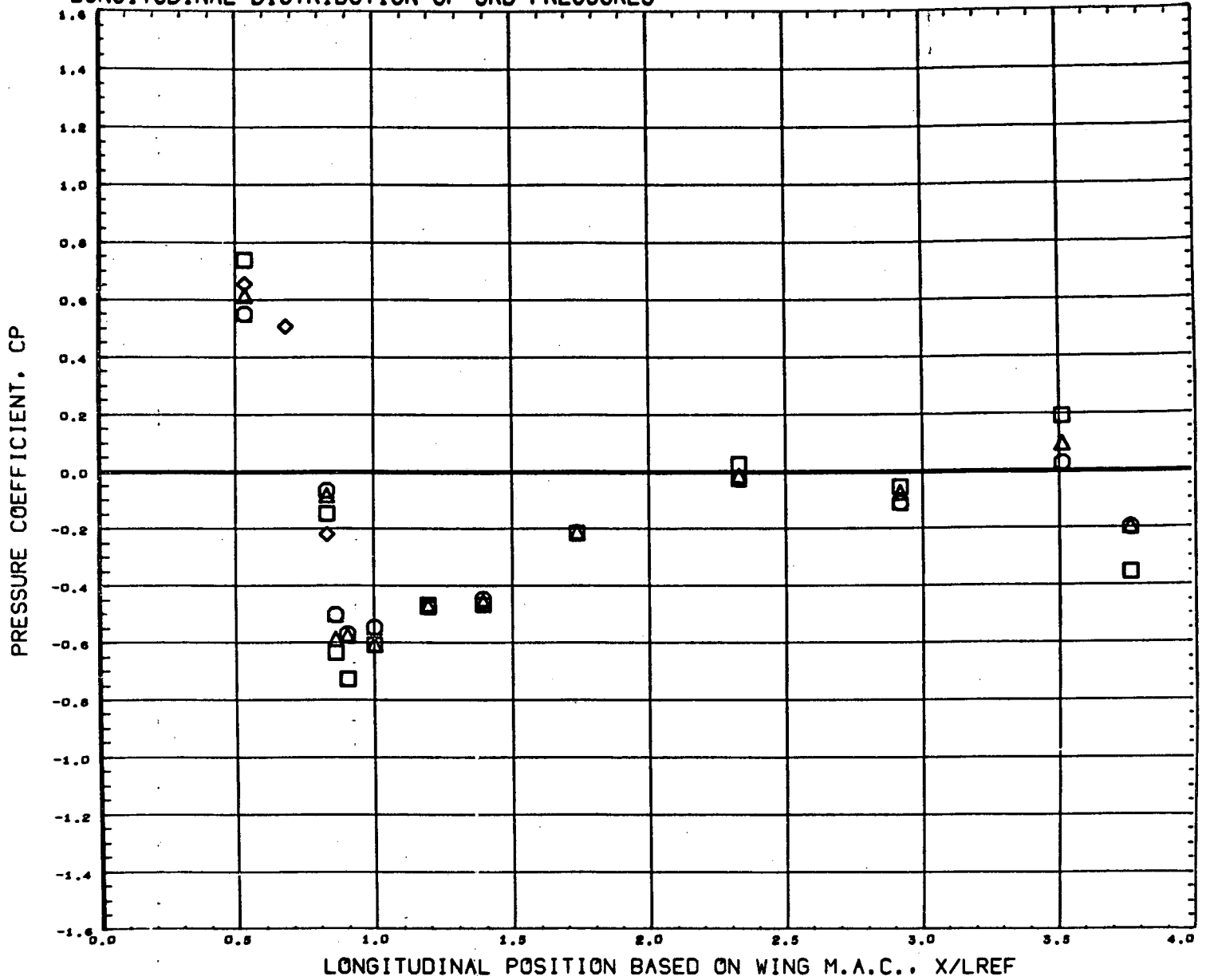
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF				PARAMETRIC VALUES	
SYMBOL	PHI	ALPHA	MACH	BETA	ORBINC
○	120,000	4.000	1.200	0.000	1.500
△	135,000			0.025	
◇	150,000				
□	165,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

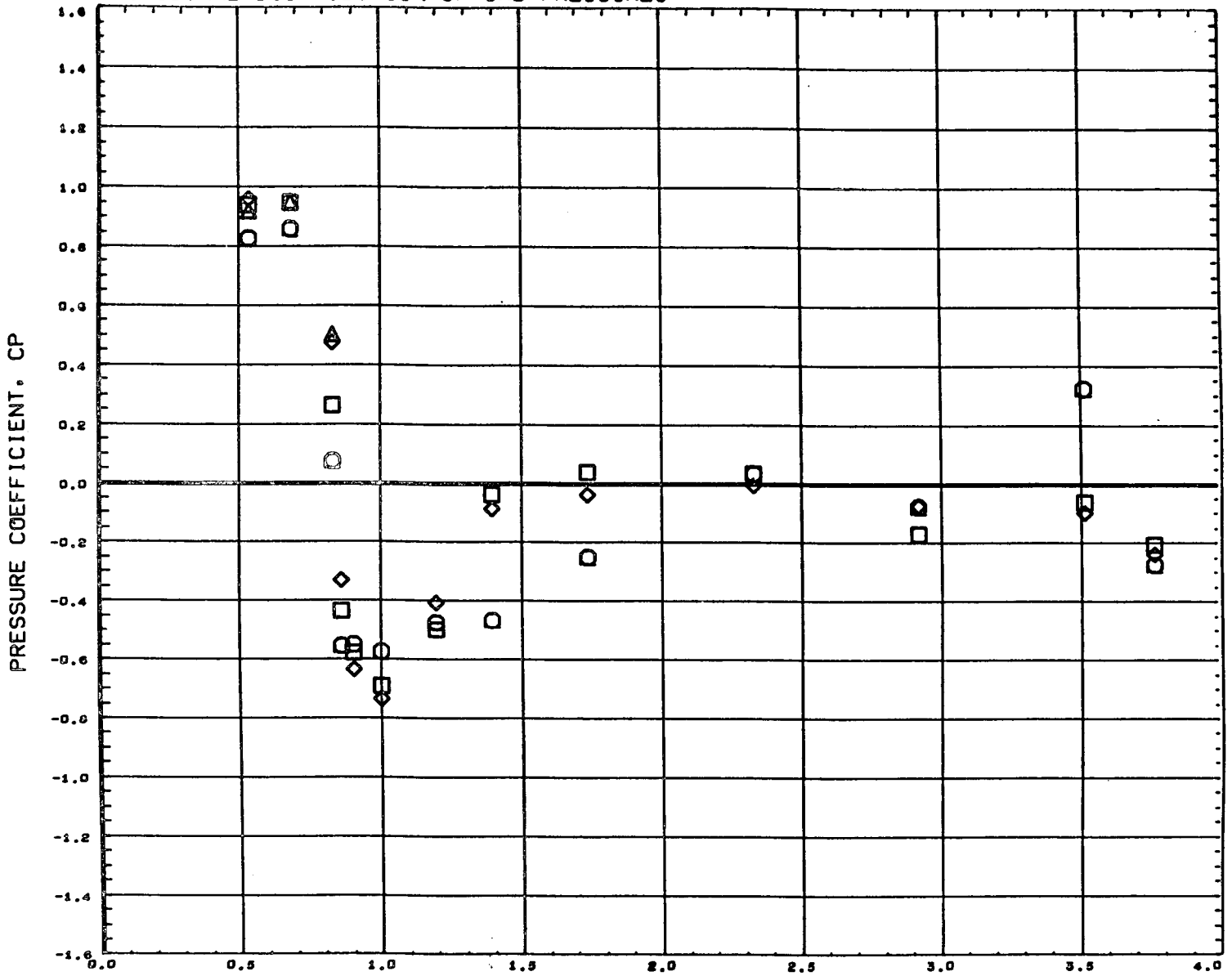
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	180,000	4.000	1.200	0.000	0.025	ORBINC - 1.500
△	195,000					
◇	210,000					
□	225,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

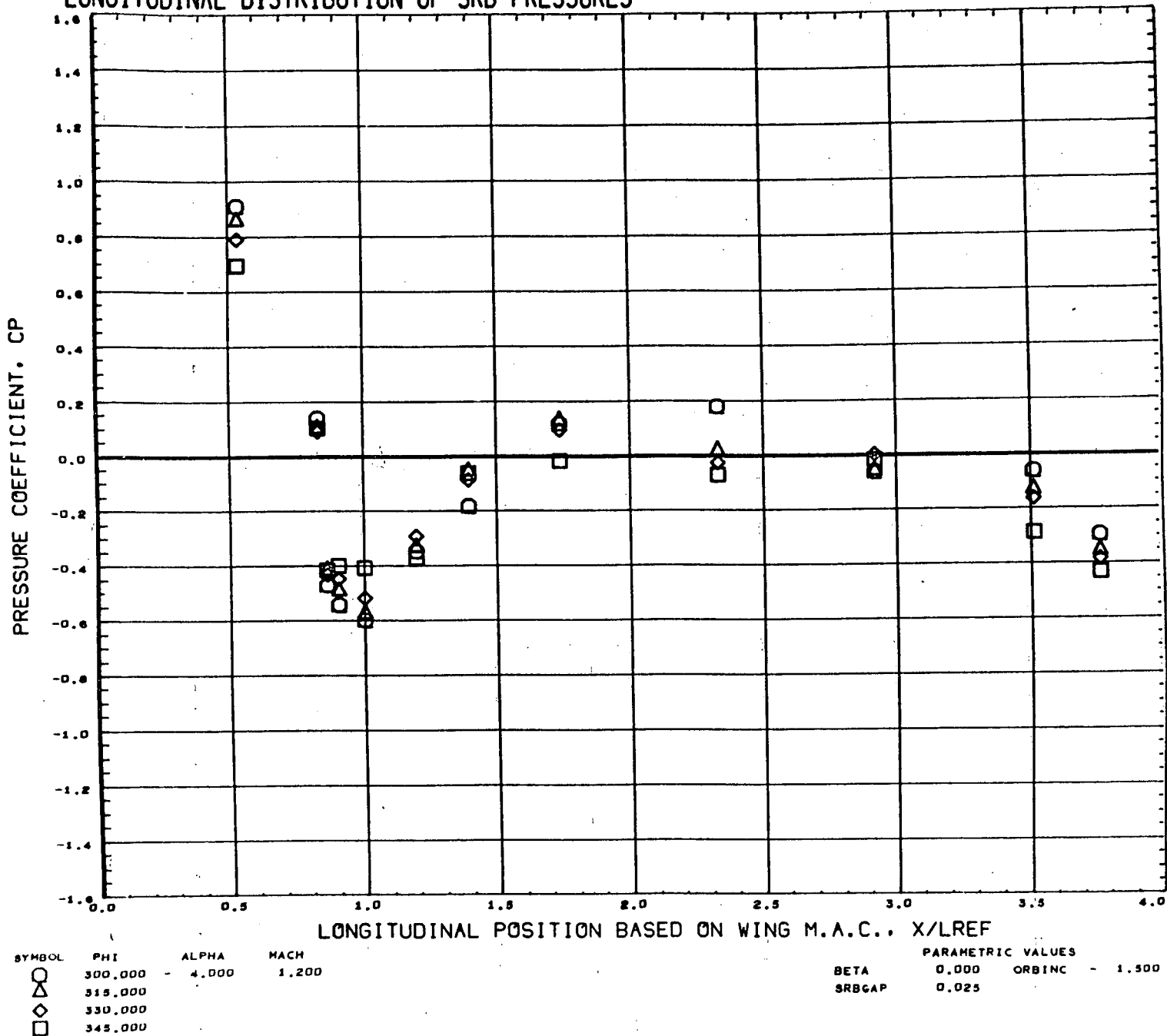
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240.000	- 4.000	1.200	BETA	0.000 ORBINC - 1.500
△	255.000			SRBGAP	0.025
◇	270.000				
□	285.000				

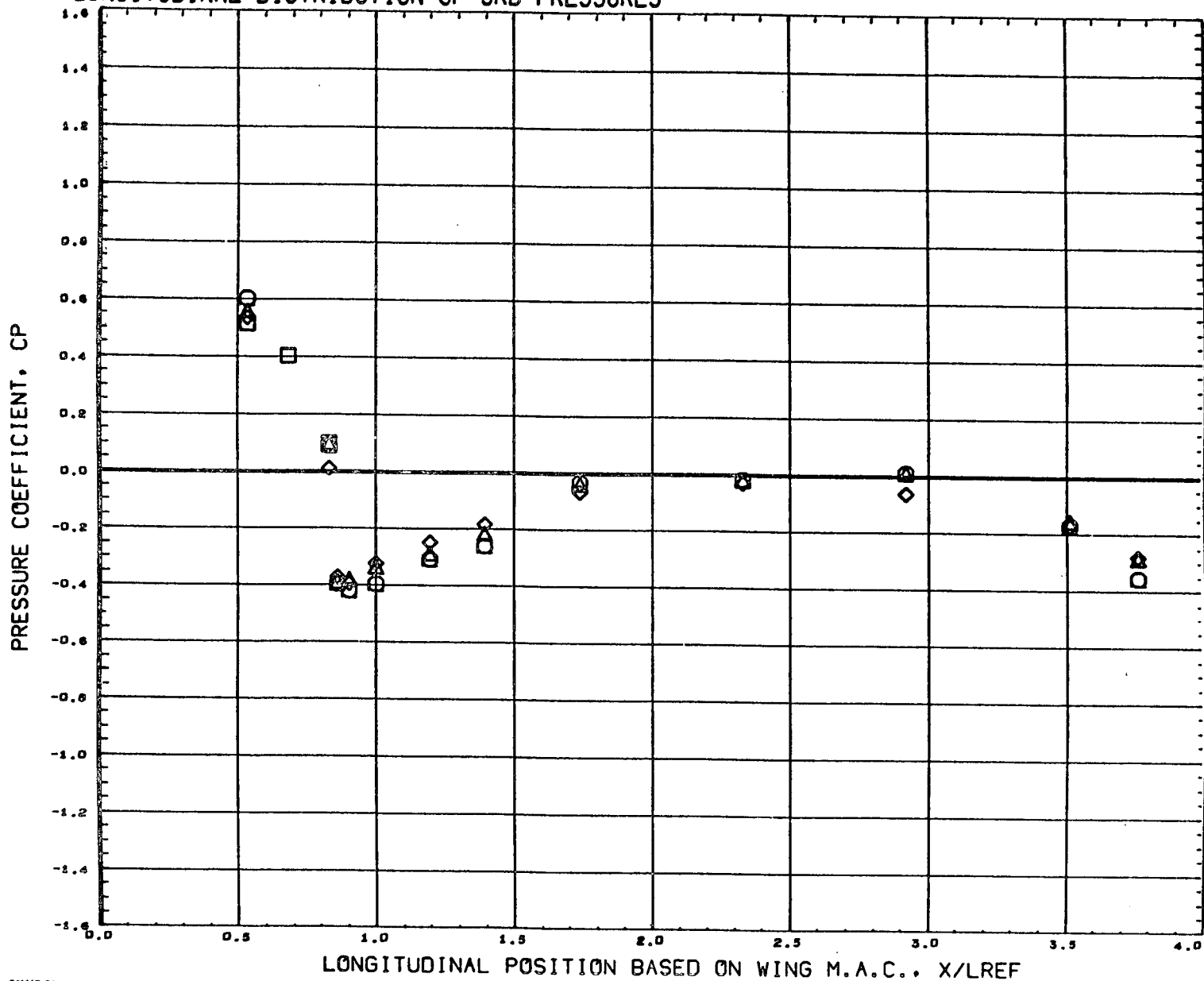
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

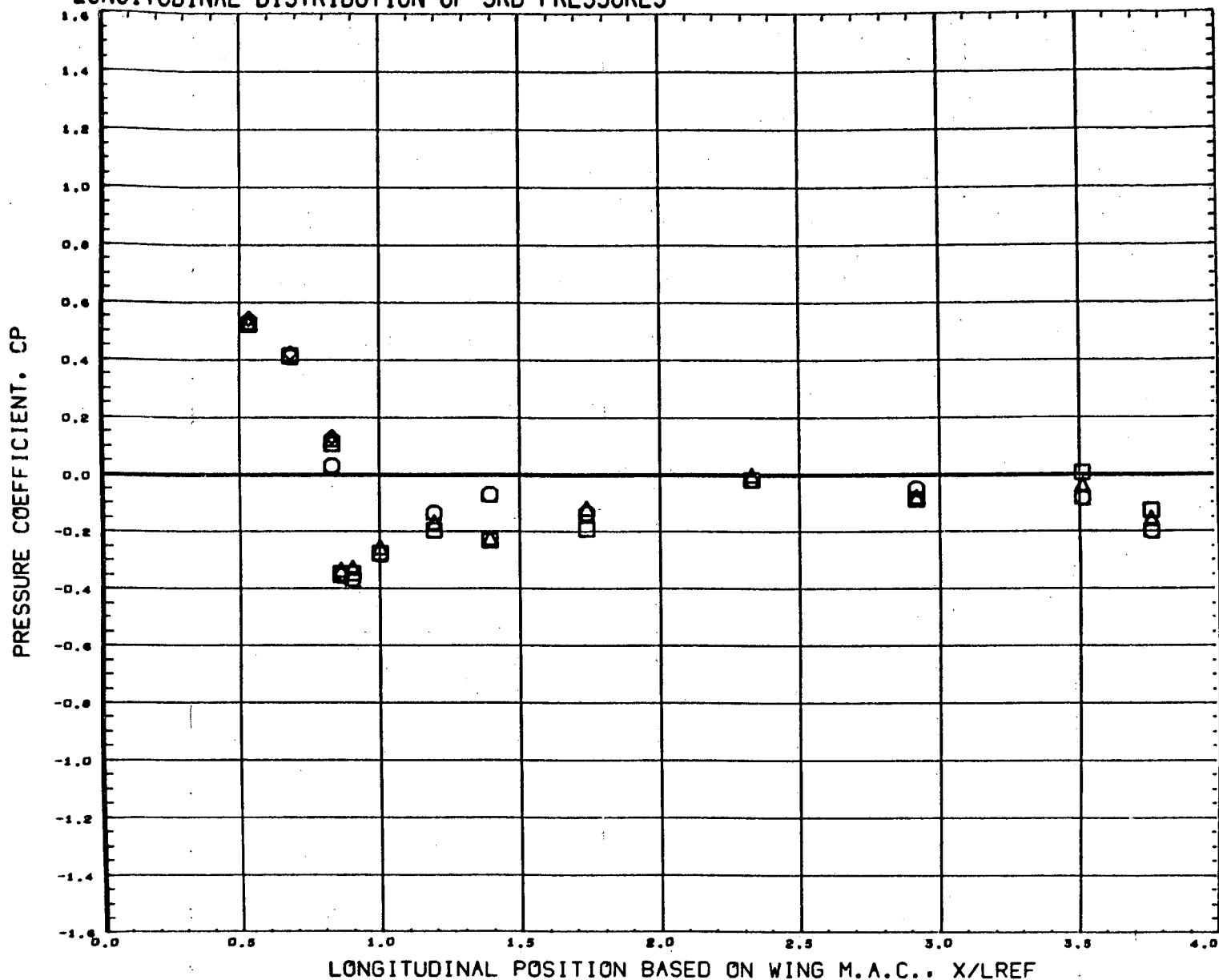
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	1.200	BETA	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



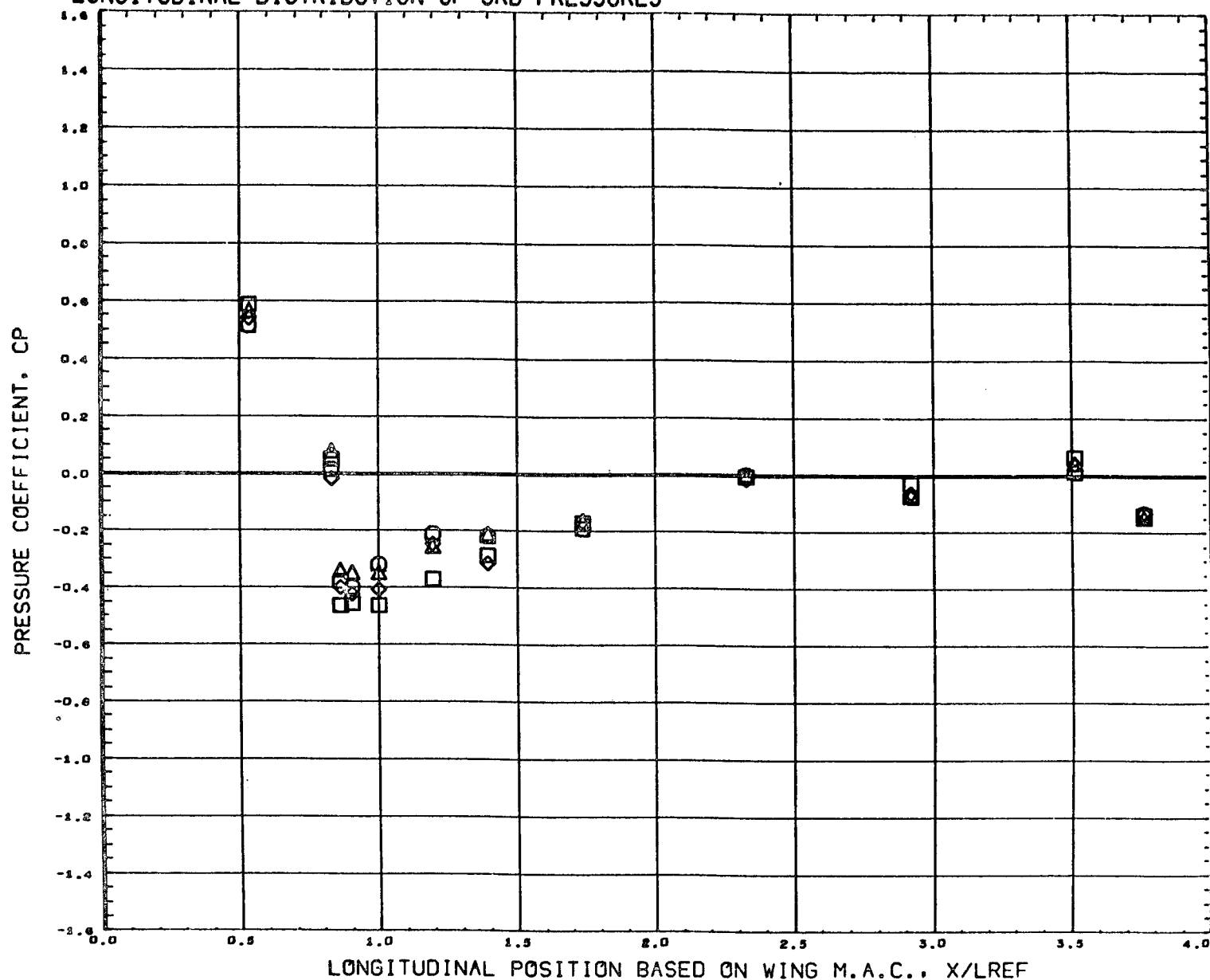
SYMBOL
 ○ 60.000
 △ 75.000
 ◇ 90.000
 □ 105.000

ALPHA 0.000
 MACH 1.200

PARAMETRIC VALUES
 BETA 0.000 ORBINC 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

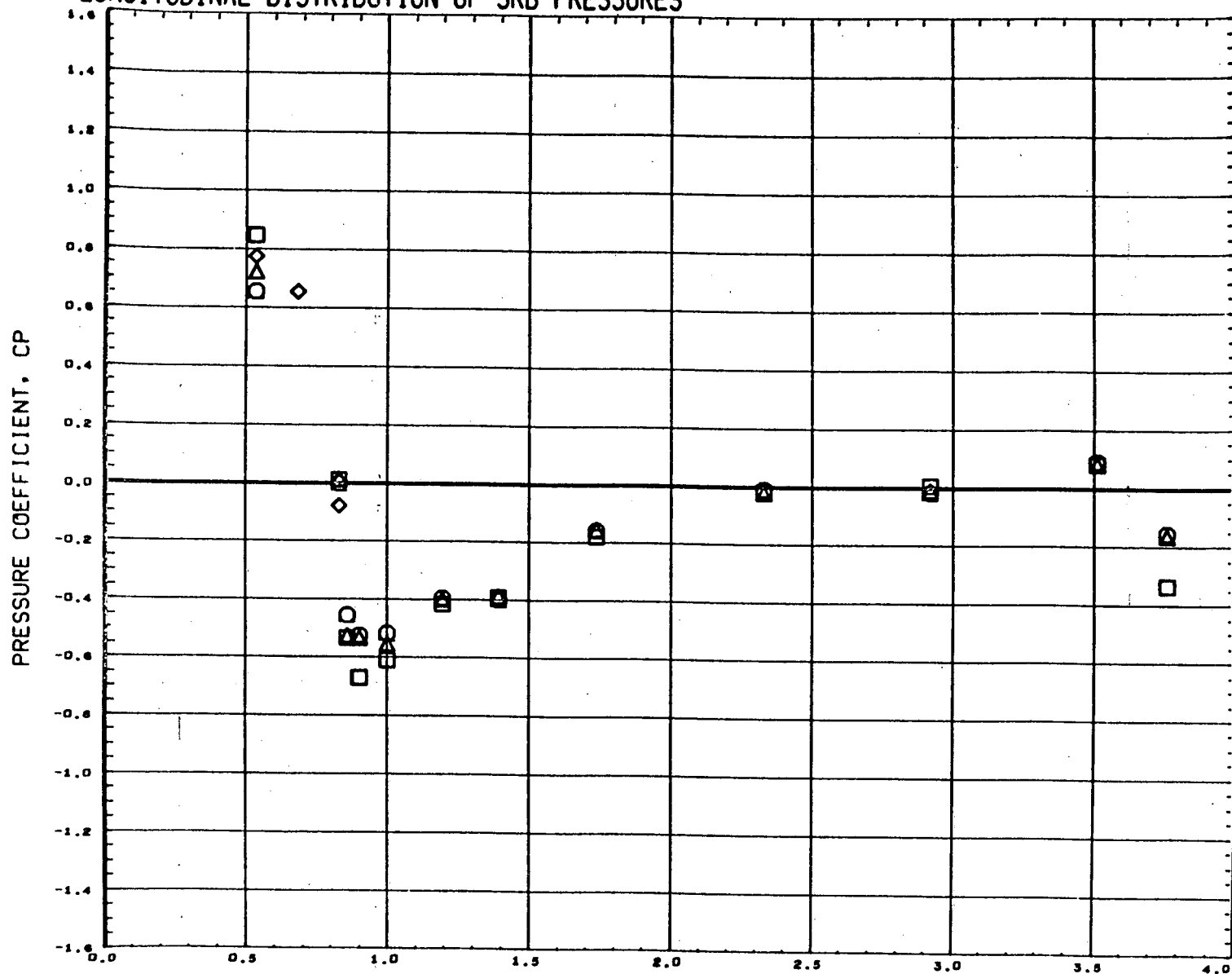
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120,000	0.000	1.200	BETA	0.000 ORBINC - 1.500
△	135,000			SRBGAP	0.025
◇	150,000				
□	160,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○
 ◇
 △
 □

PHI
 180,000
 195,000
 210,000
 225,000

ALPHA
 0.000

MACH
 1.200

BETA
 SRBCAP

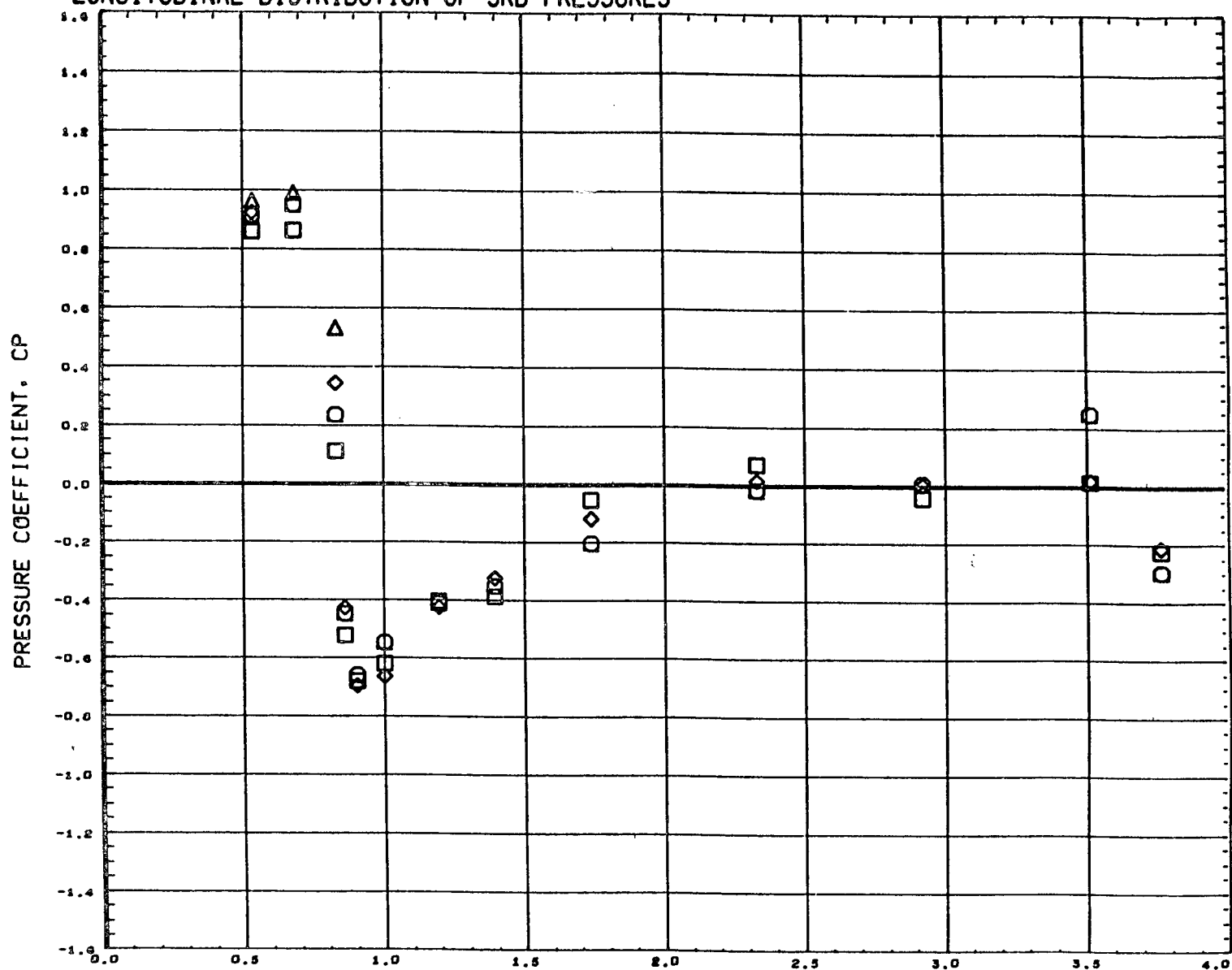
PARAMETRIC VALUES
 0.000 ORBINC - 1.500
 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 391

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

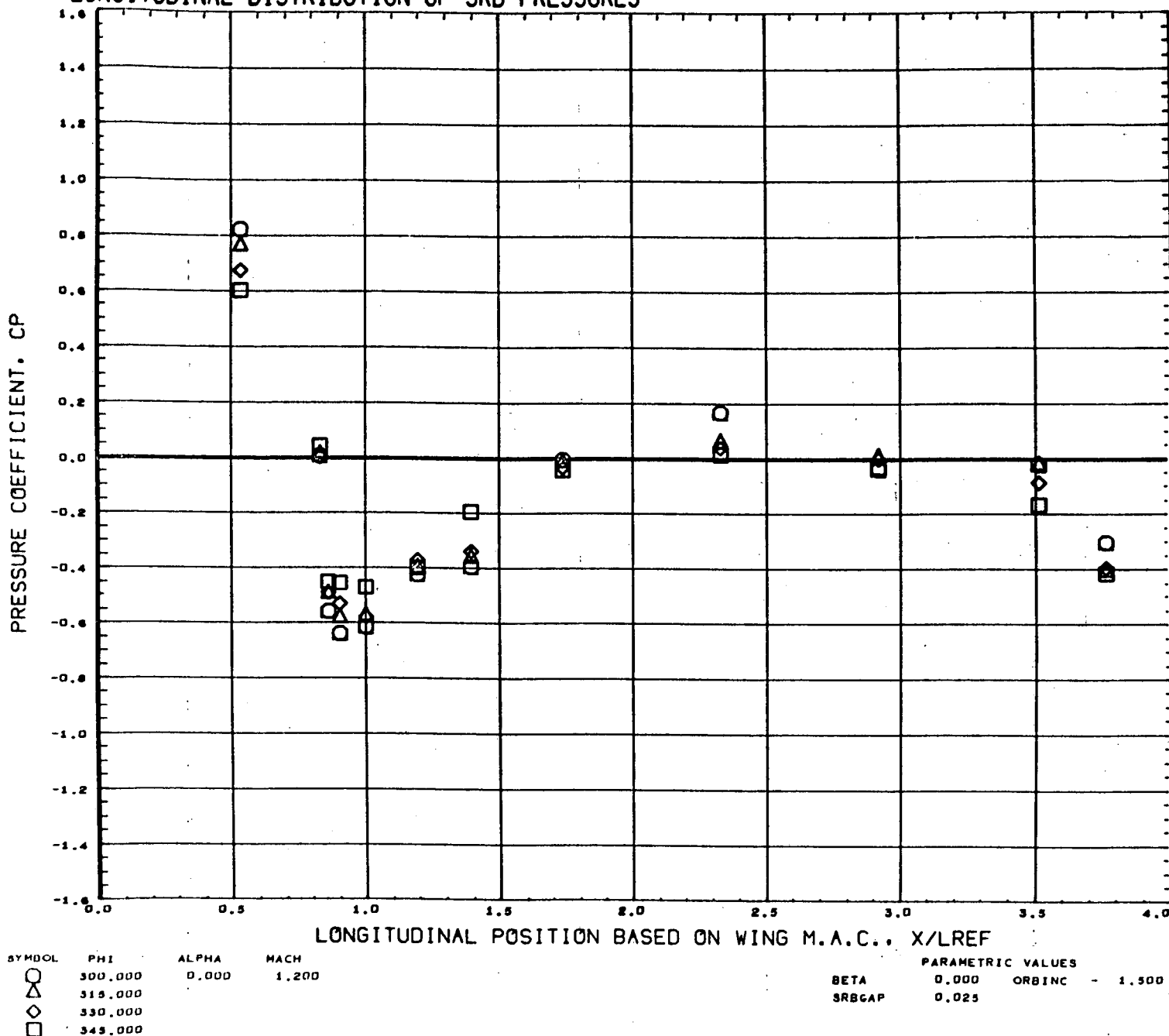


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240,000	0,000	1,200	BETA	0,000 ORBINC - 1,500
△	255,000			SRBGAP	0,025
◇	270,000				
□	285,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



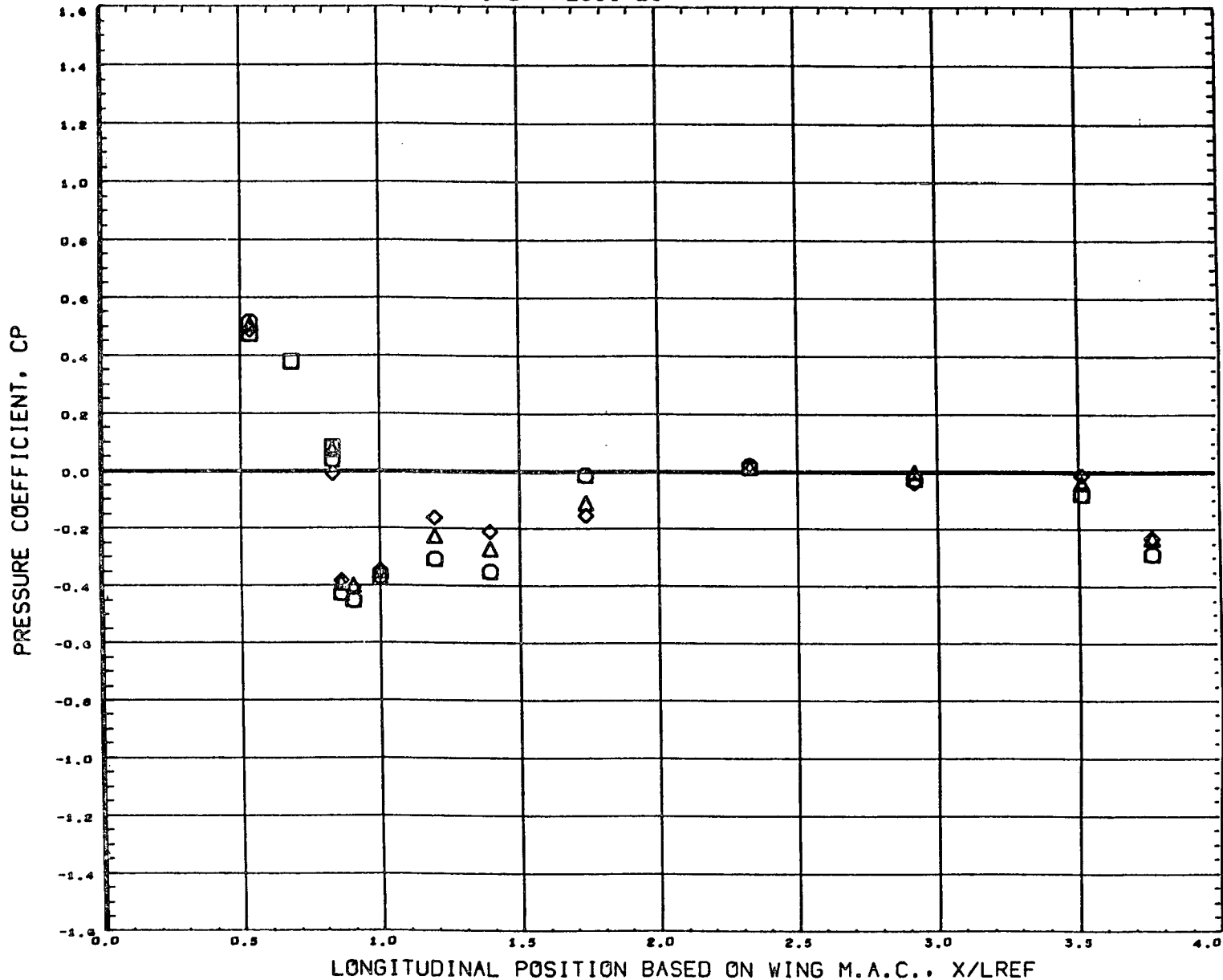
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 393

D

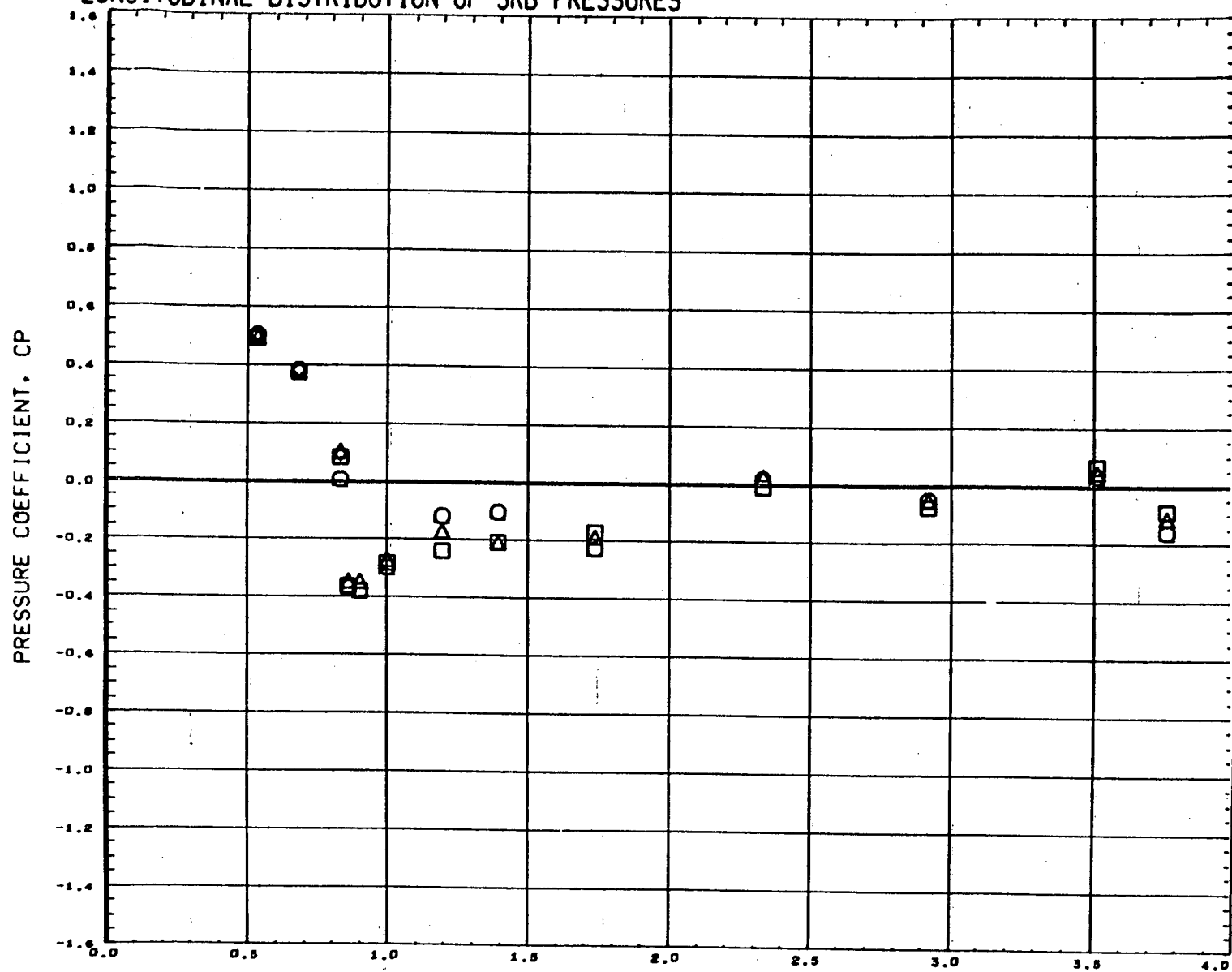
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	1.200	BETA	0.000 ORBINC - 1.500
△	13.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○ 60.000
 △ 75.000
 ◇ 90.000
 □ 105.000

PHI
 ALPHA
 MACH
 4.000
 1.200

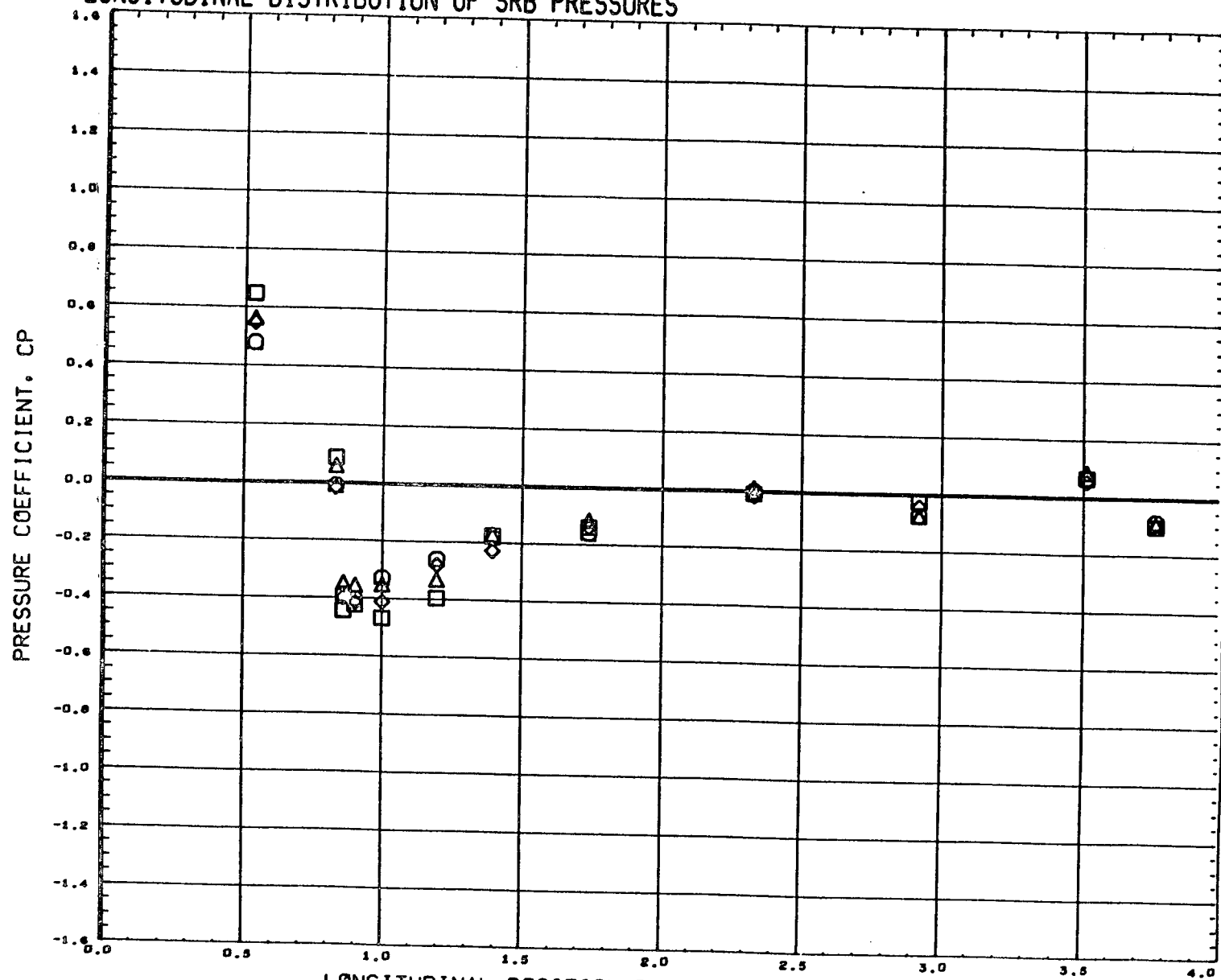
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 395

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	120,000	4.000	1.200
△	135,000		
◇	150,000		
□	165,000		

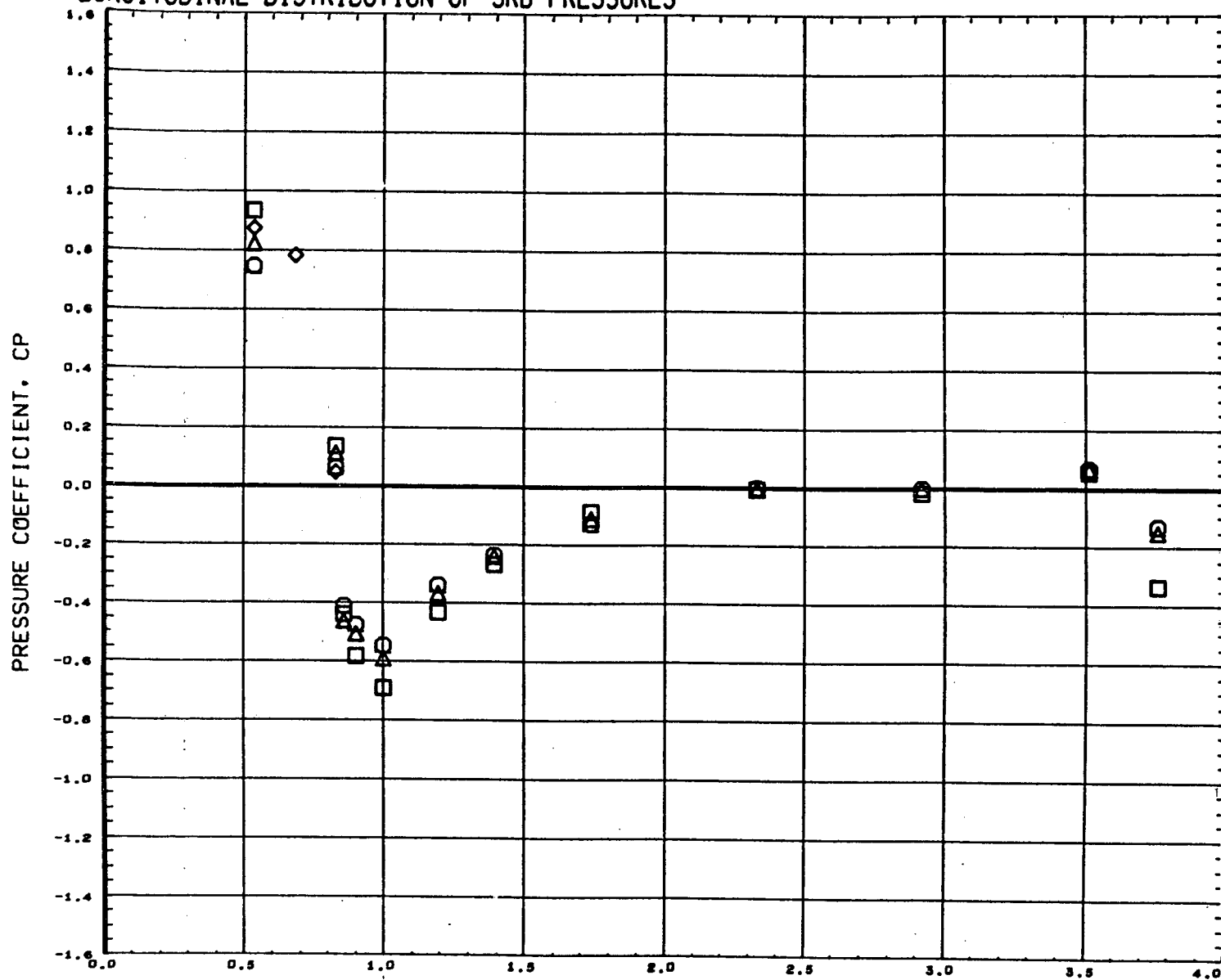
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 396

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	180,000	4.000	1.200
△	195,000		
◇	210,000		
□	225,000		

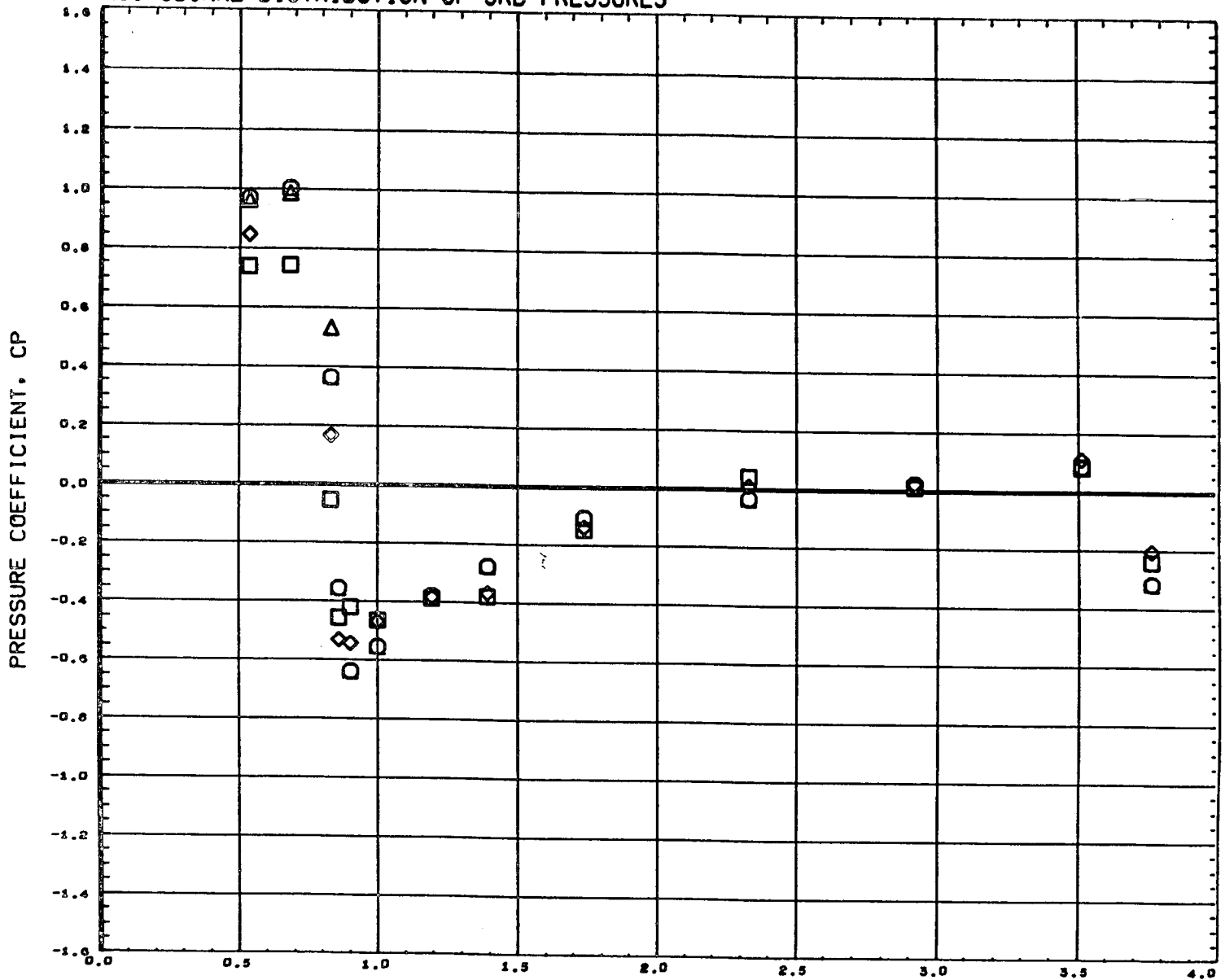
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 397

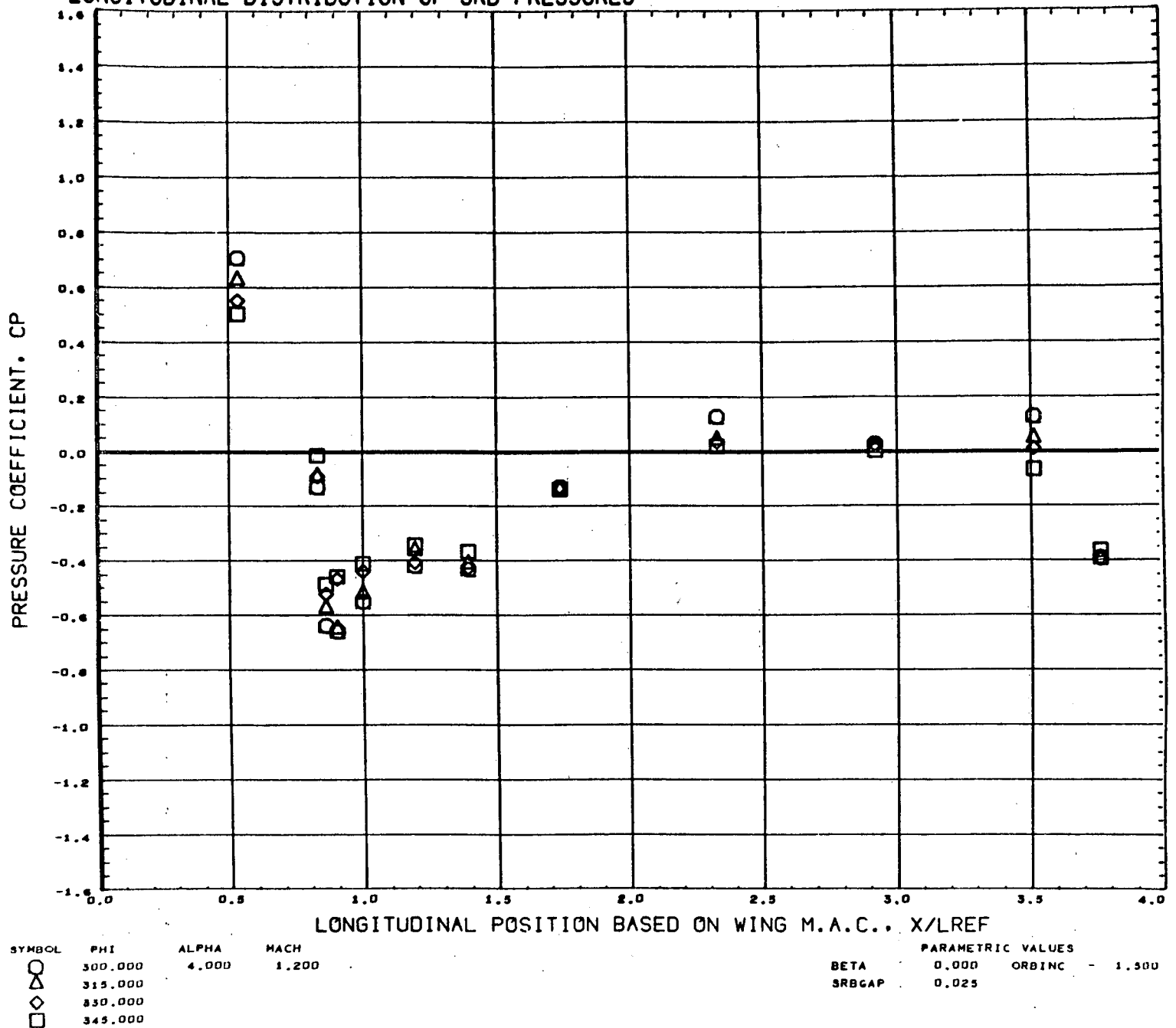
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	4.000	1.200	BETA	0.000	ORBINC - 1.500
△	255.000			SRBGAP	0.025	
◇	270.000					
□	285.000					

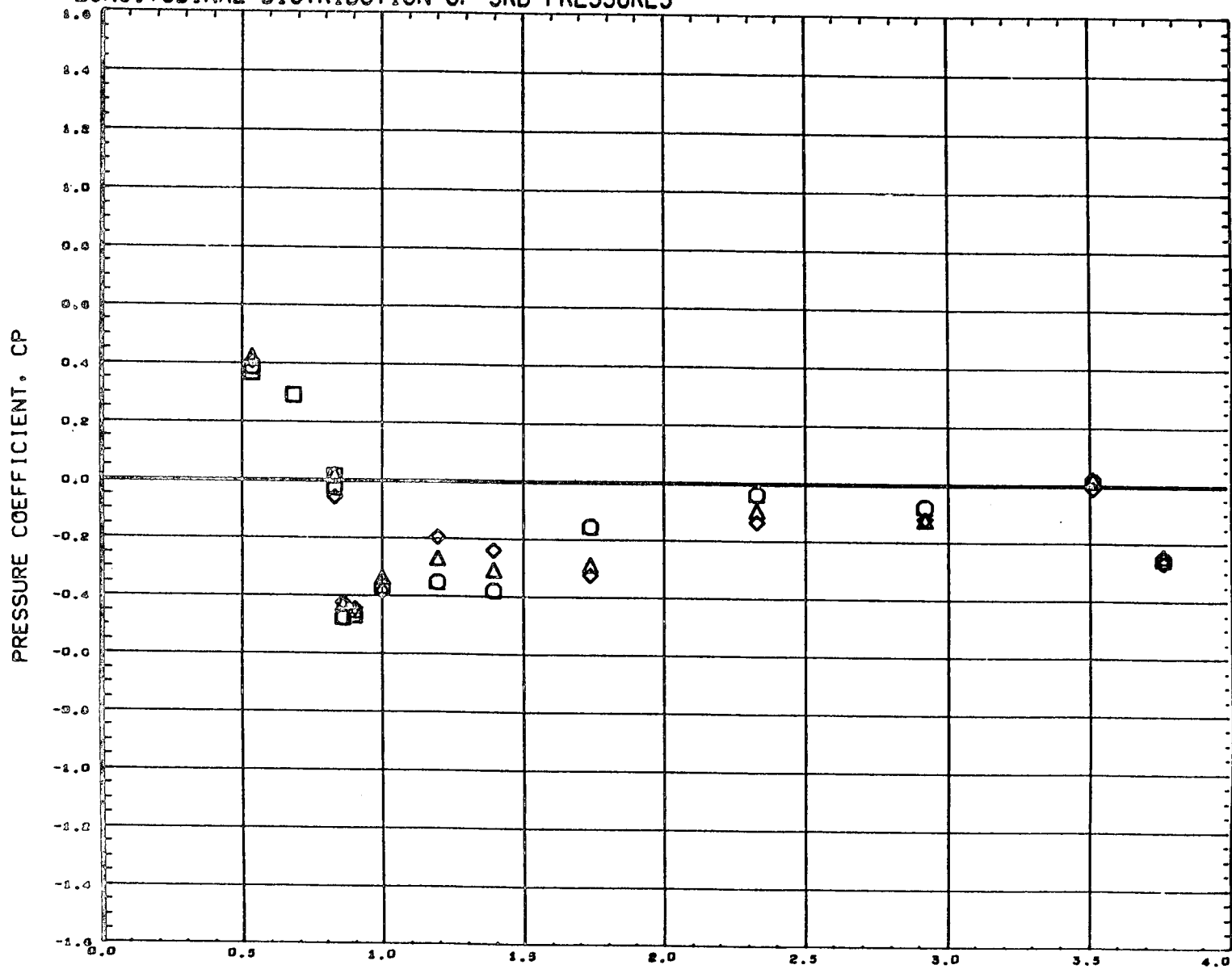
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

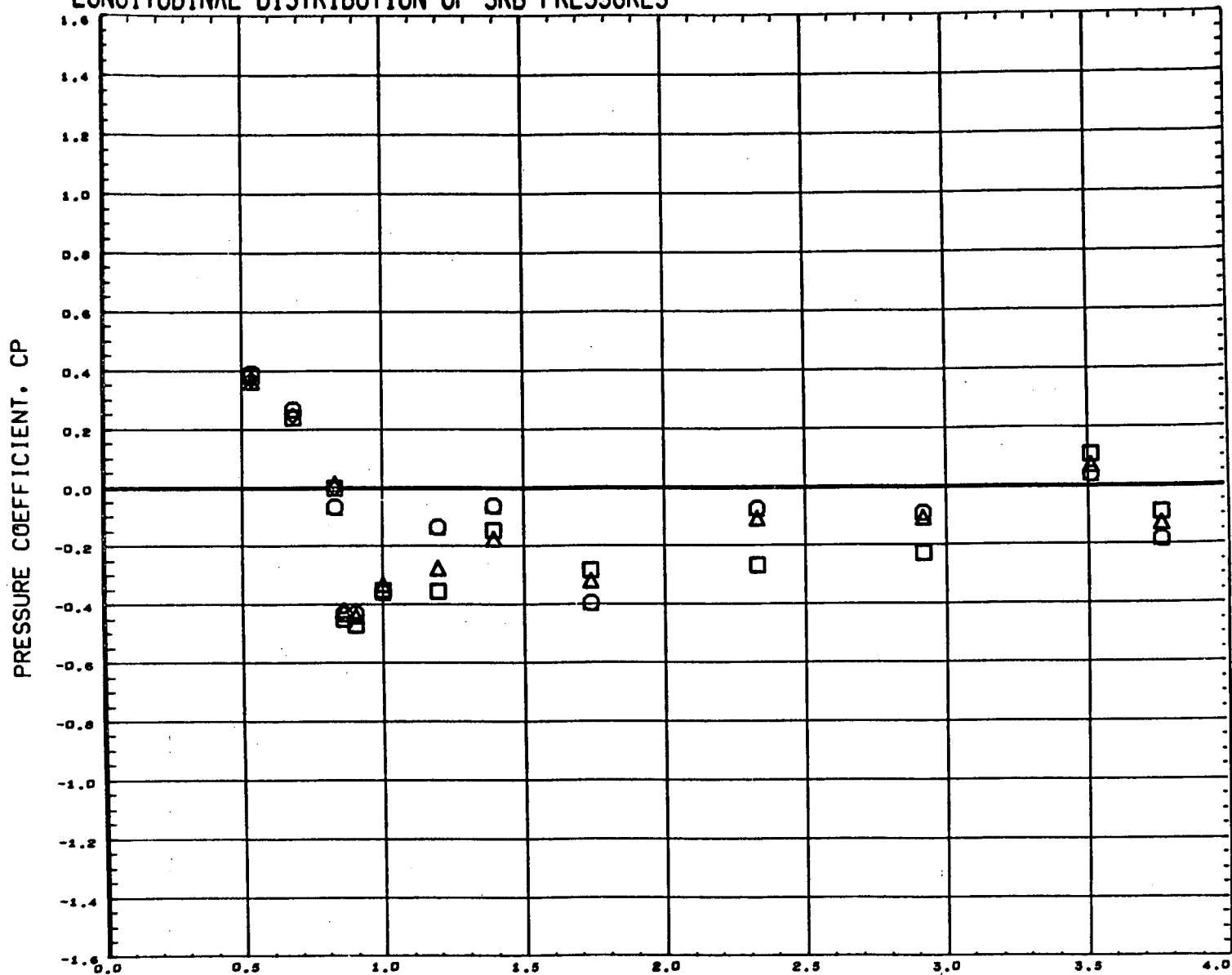


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	SRBCAP	PARAMETRIC VALUES
○	0.000	10.000	1.200	0.000	0.025	ORBINC - 1.500
□	15.000					
◇	30.000					
△	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

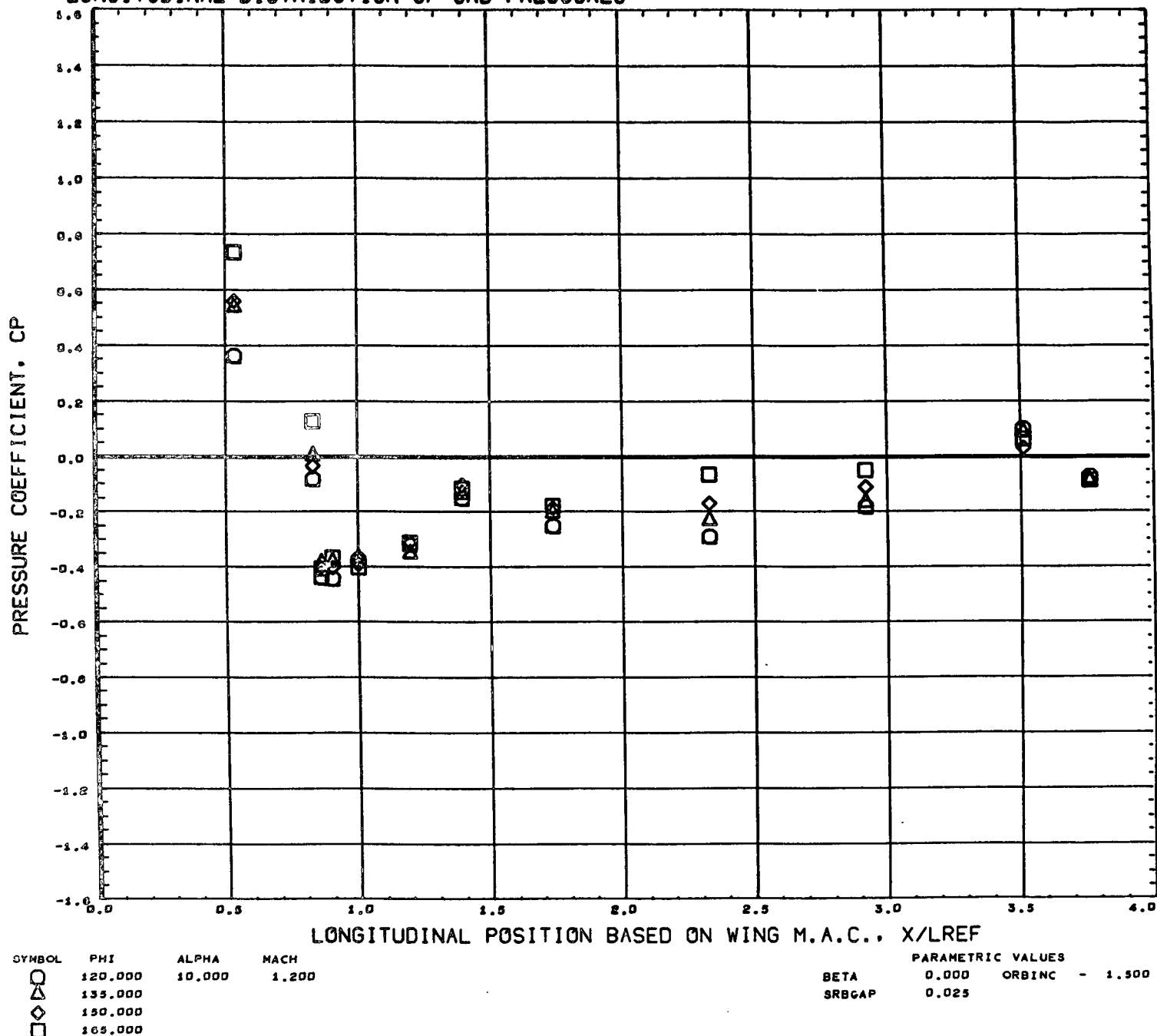
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	60.000	10.000	1.200	0.000	0.025	ORBINC - 1.500
△	75.000					
◇	90.000					
□	105.000					

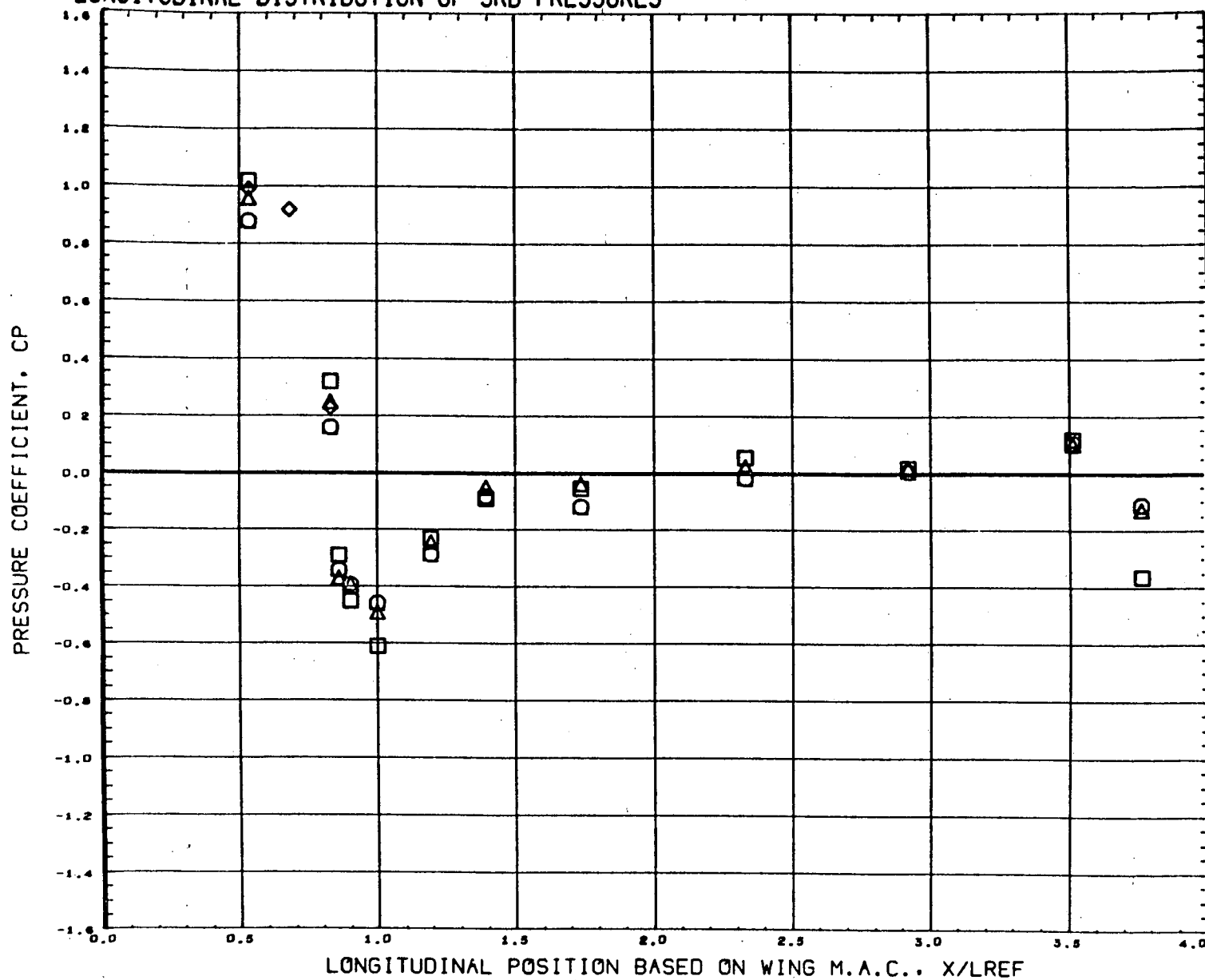
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

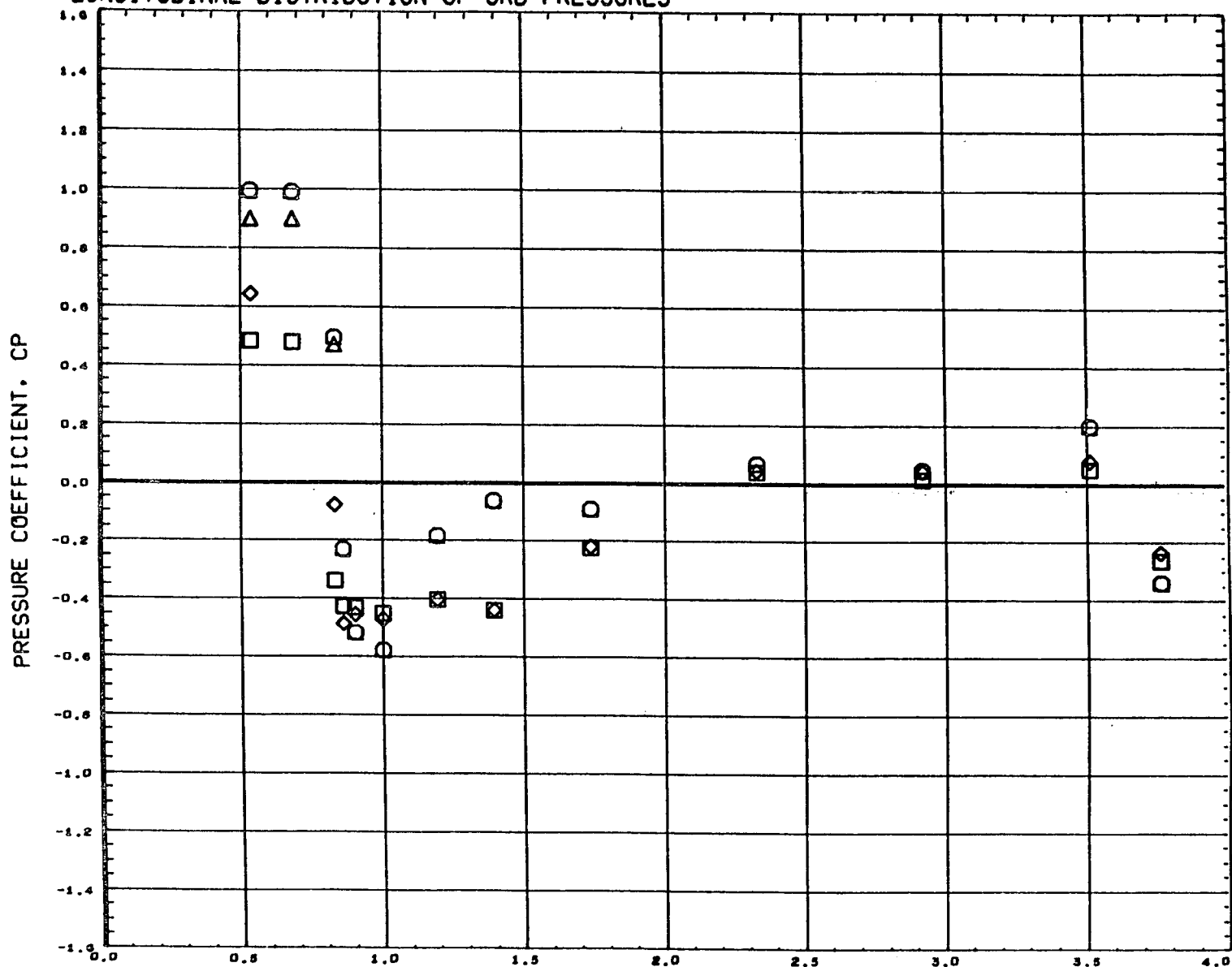
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	180.000	10.000	1.200	BETA	0.000 ORBINC - 1.500
△	190.000			SRBGAP	0.025
◇	210.000				
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369.

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



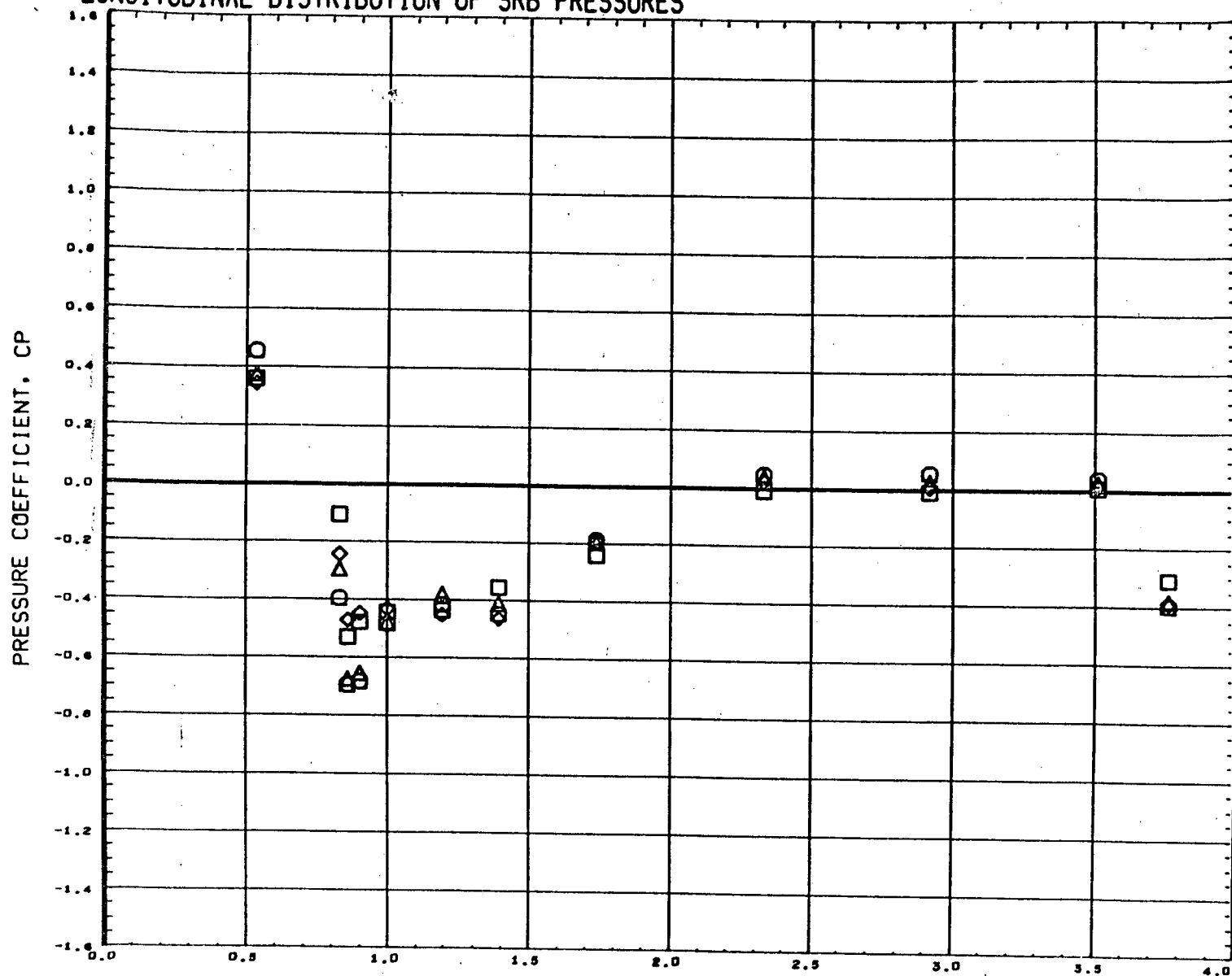
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	240,000	10,000	1,200
△	255,000		
◇	270,000		
□	285,000		

PARAMETRIC VALUES		
BETA	0,000	ORBINC - 1,500
SRBGAP	0,025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	300.000	10.000	1.200
△	315.000		
◇	330.000		
□	345.000		

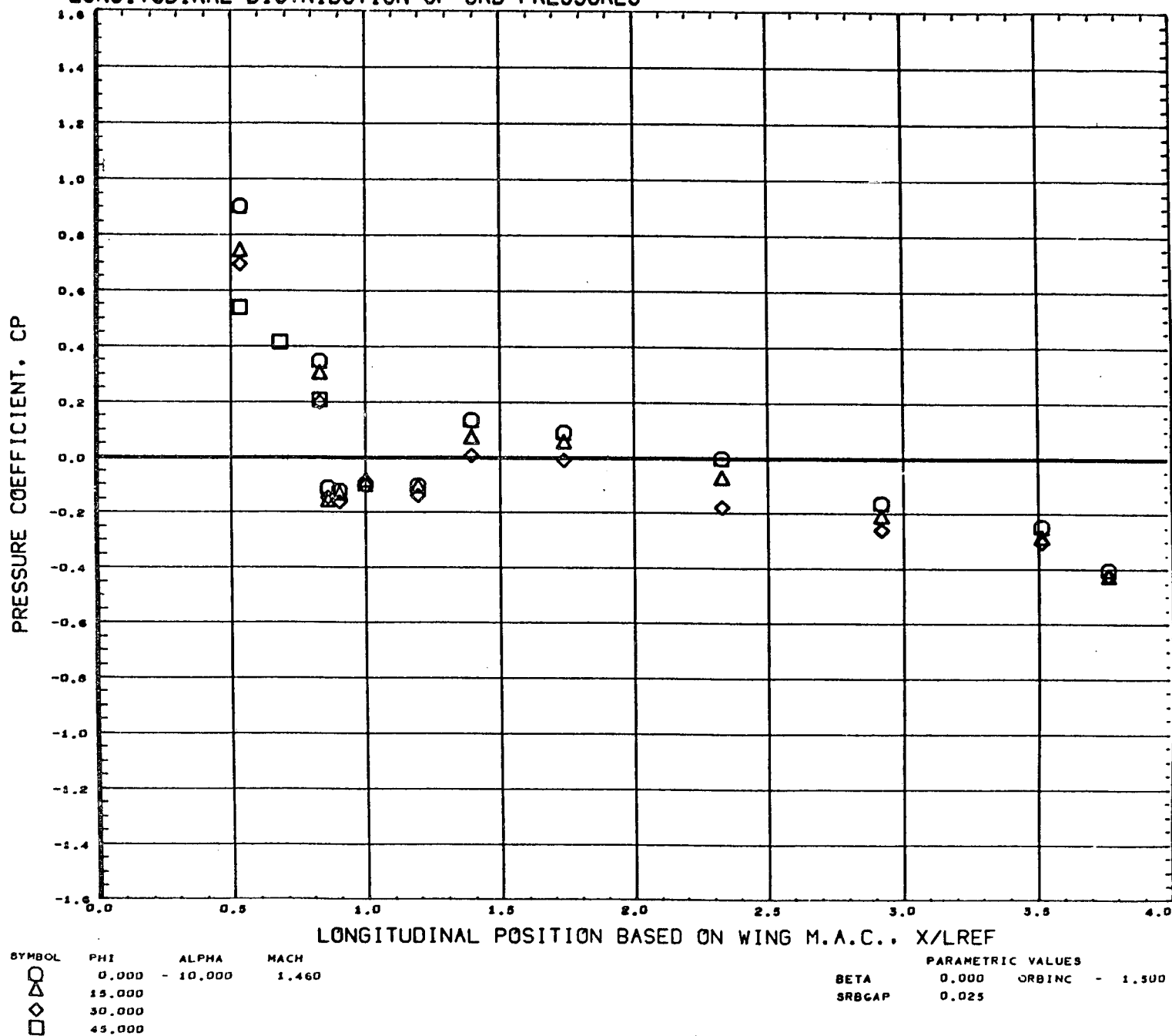
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

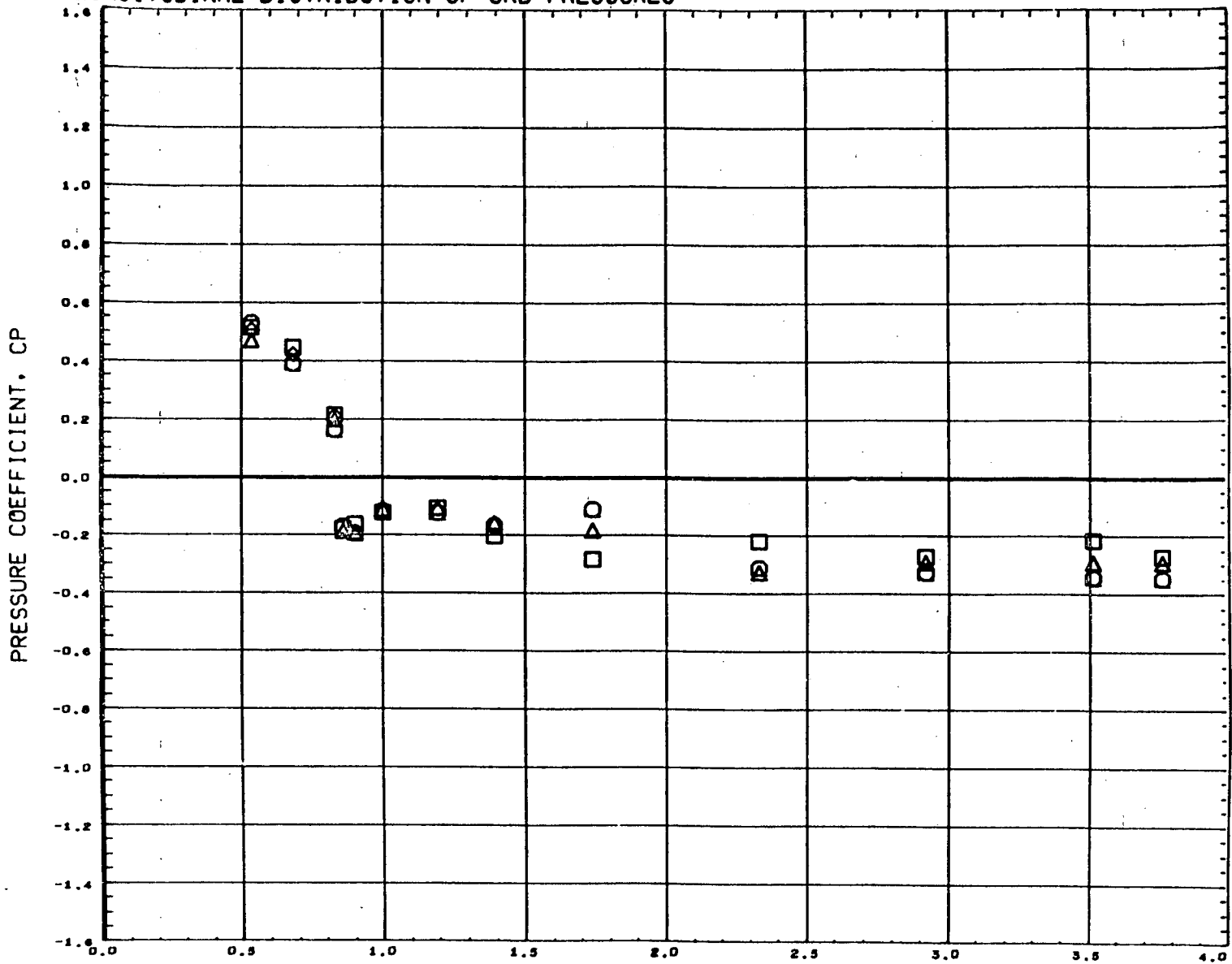
PAGE 405

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES
○	60,000	10,000	1.460	0.000	0.025	ORBINC - 1.500
△	75,000					
◇	90,000					
□	105,000					

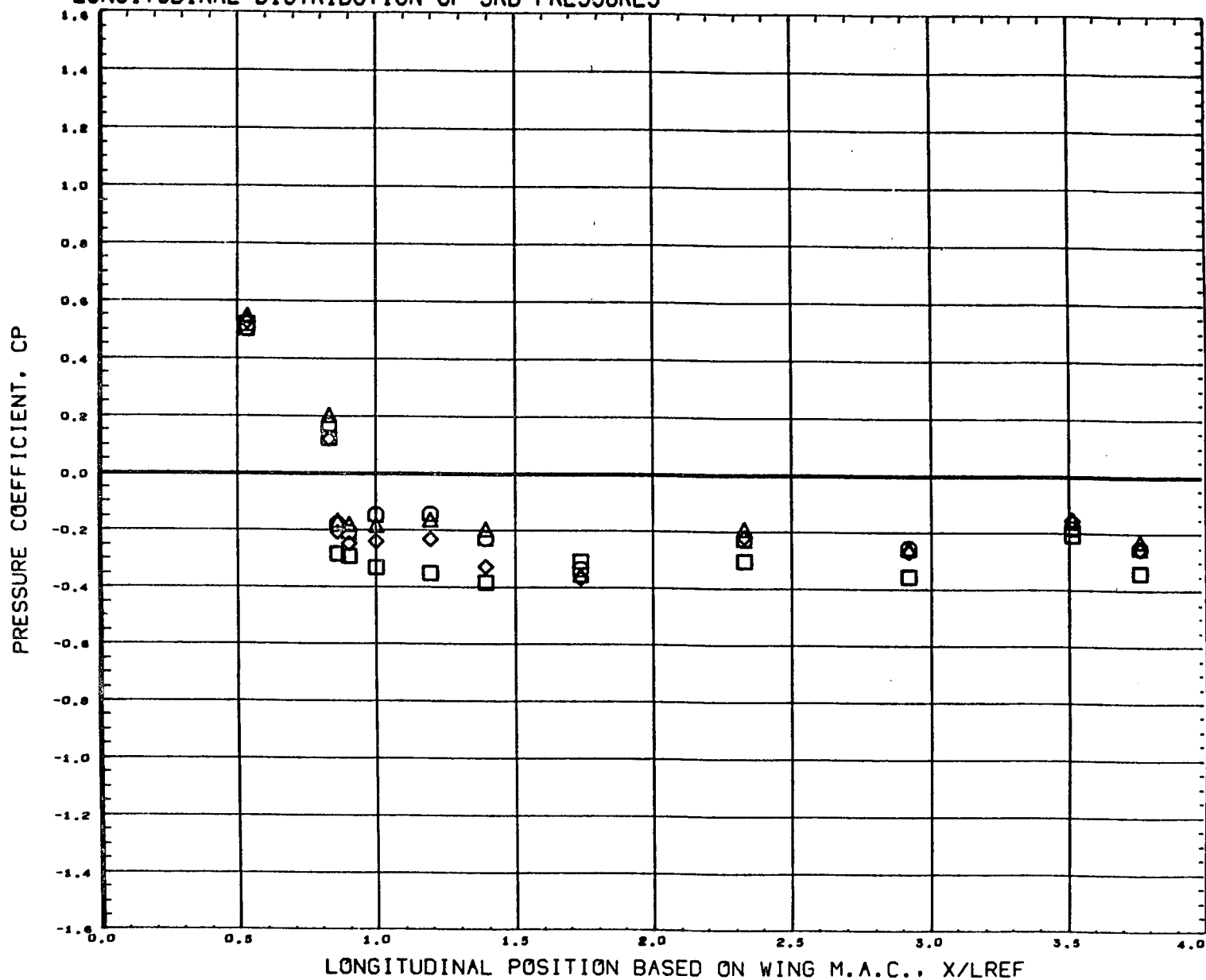
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 407

E

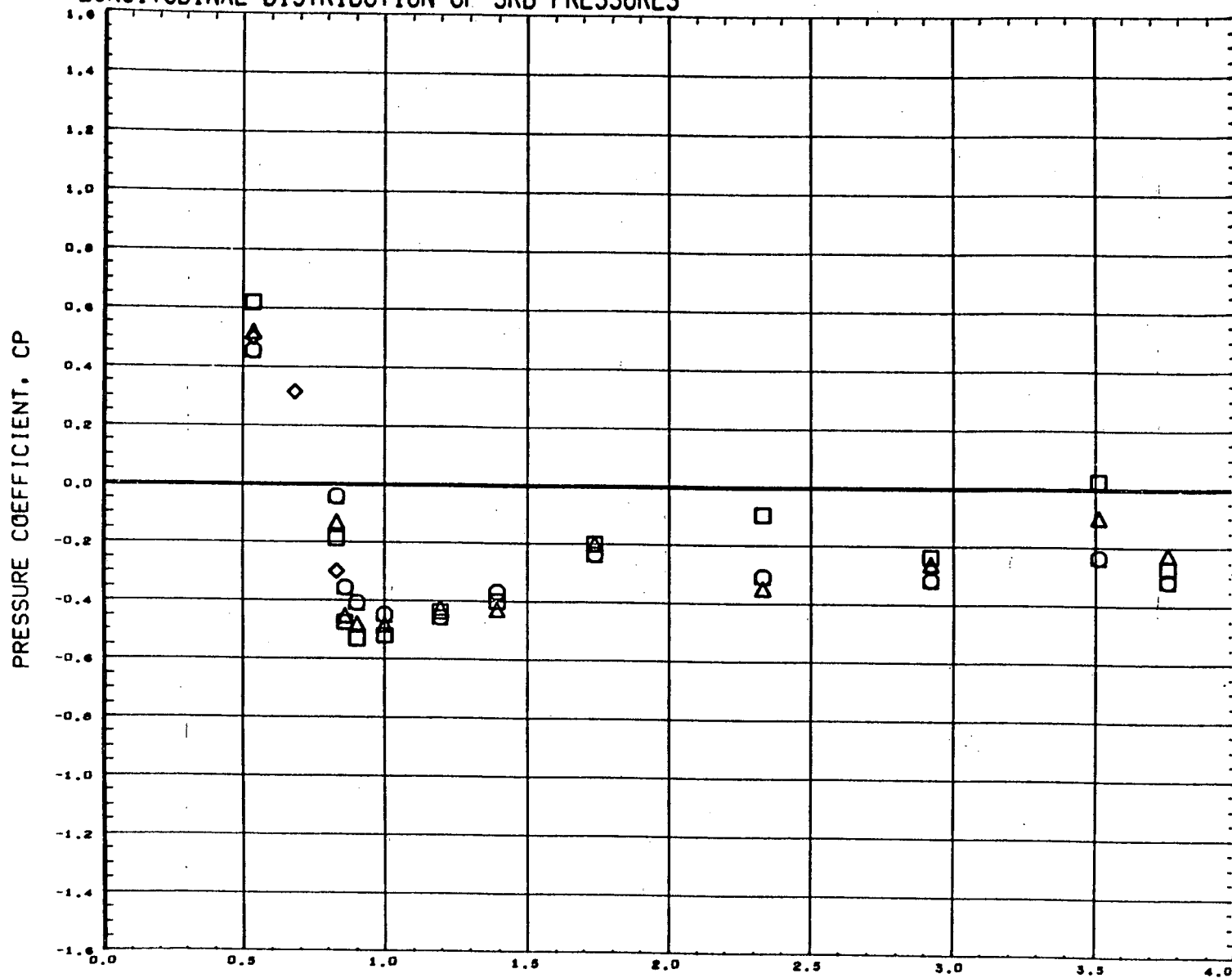
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	- 10.000	1.460	BETA	0.000	ORBINC - 1.500
◇	135.000			SRBCAP	0.025	
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

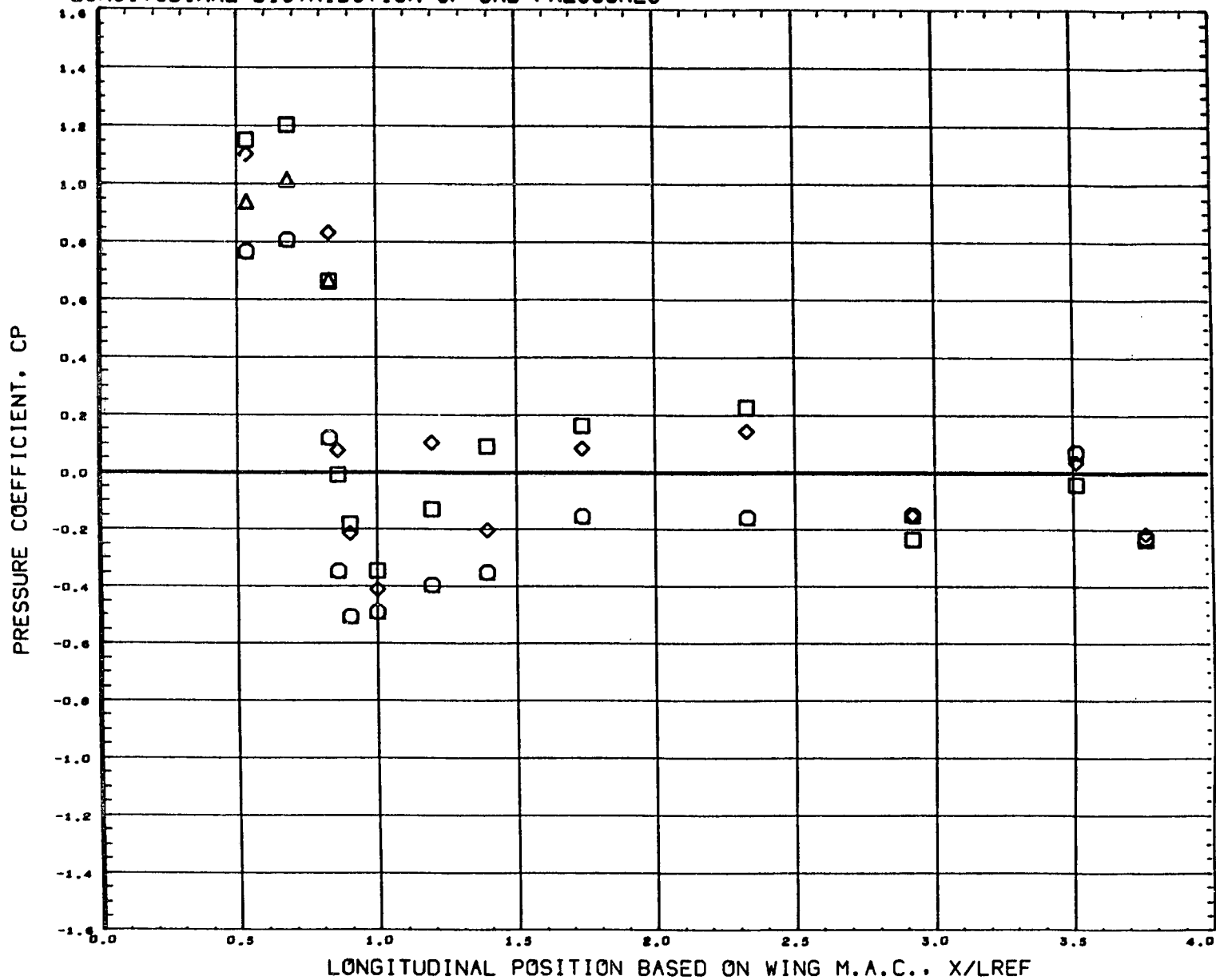


SYMBOL PHI ALPHA MACH
○ 100.000 - 10.000 1.460
△ 195.000
◇ 210.000
□ 225.000

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

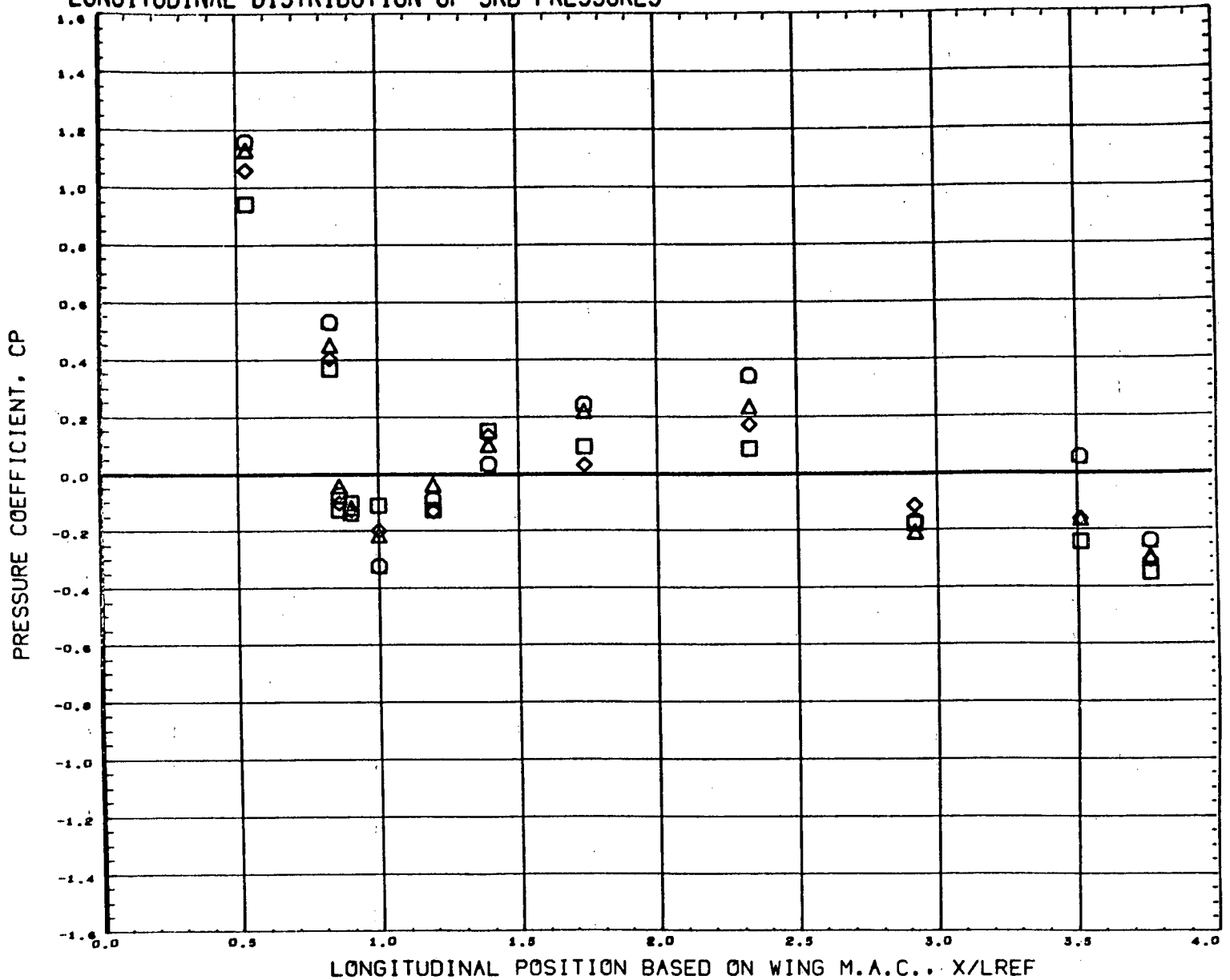
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240,000	- 10.000	1.460	BETA	0.000 ORBINC - 1.500
△	255,000			SRBGAP	0.025
◇	270,000				
□	285,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

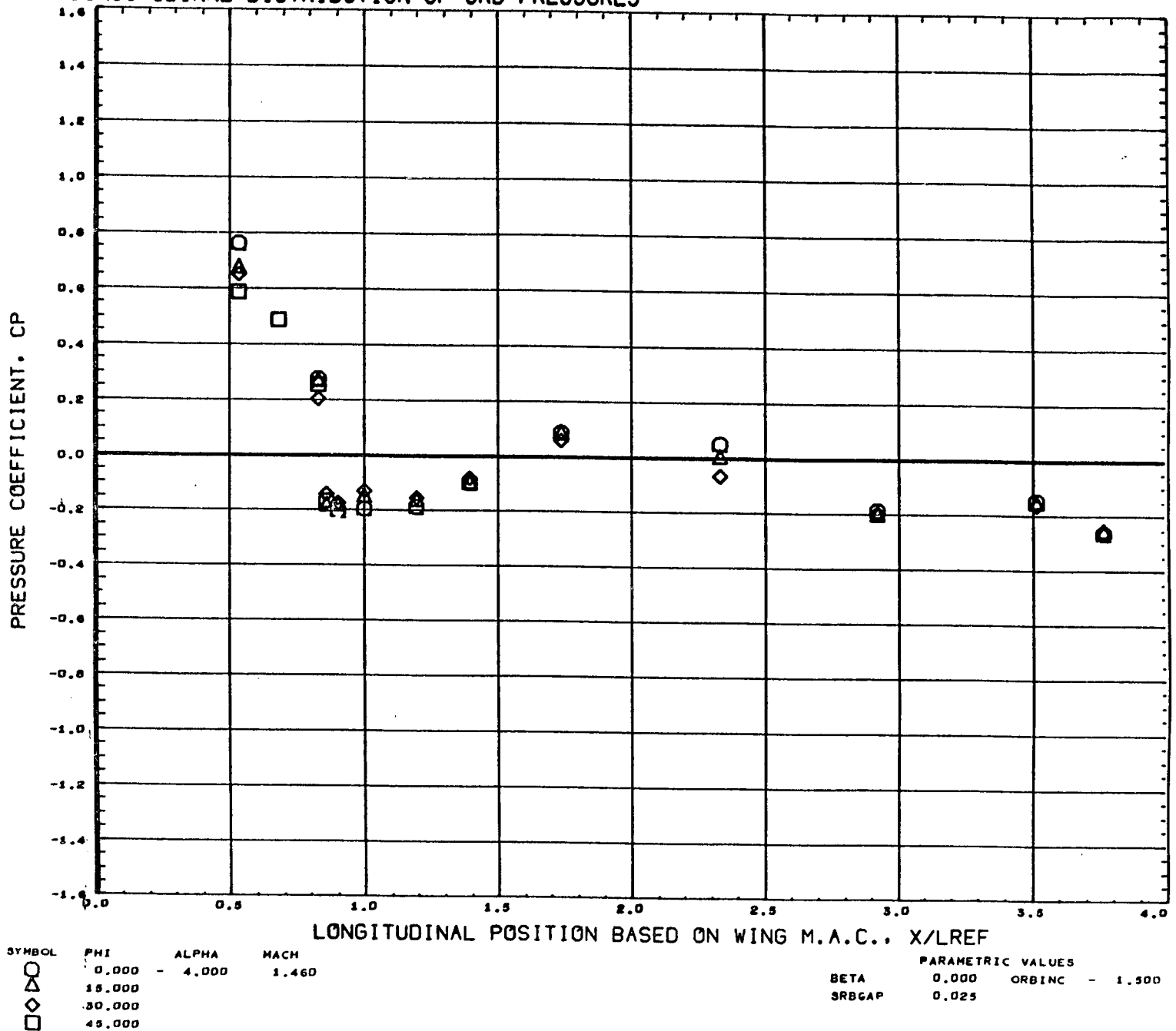


SYMBOL	PHI	ALPHA	MACH
○	300.000	- 10.000	1.460
△	315.000		
◇	330.000		
□	345.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

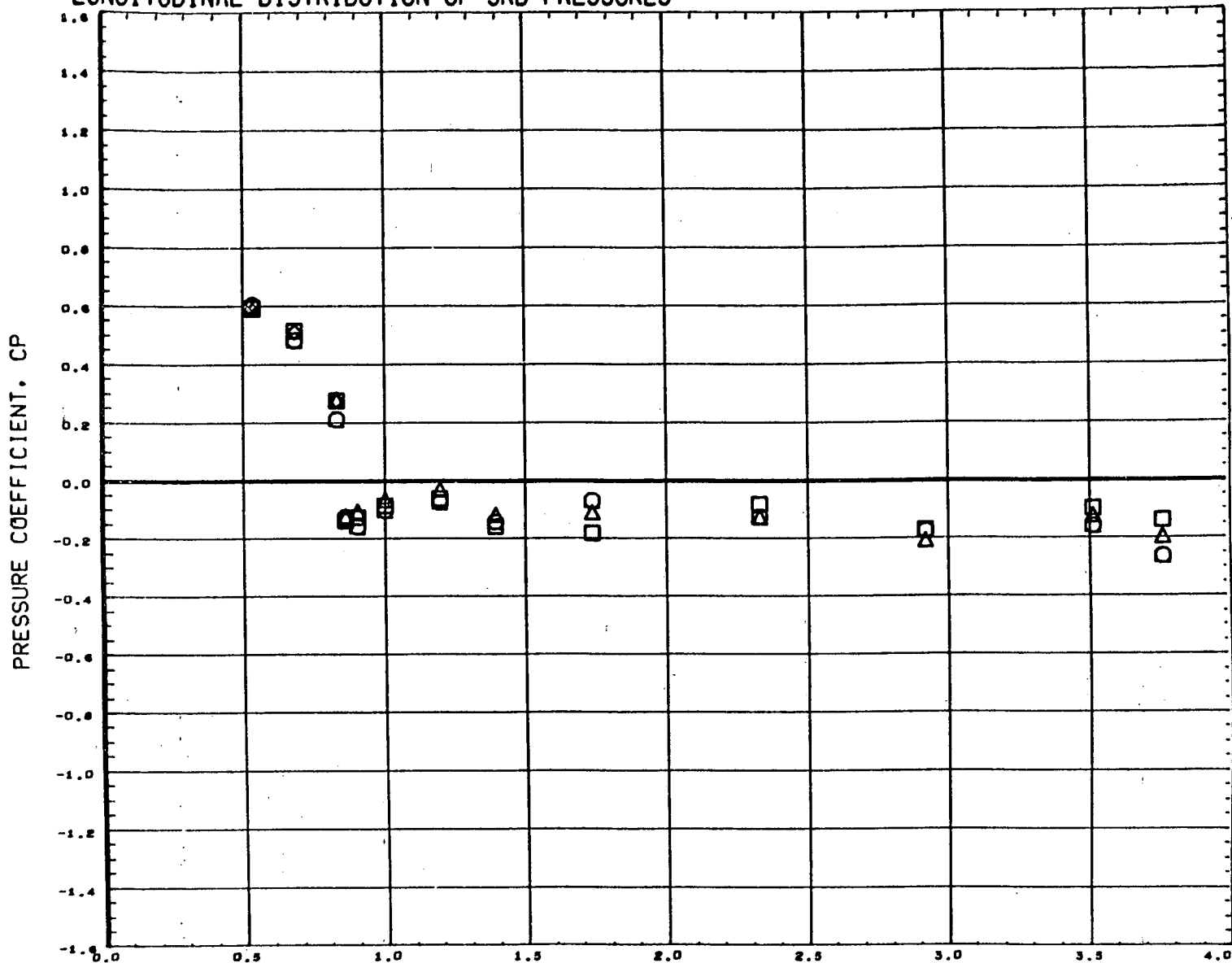


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 412

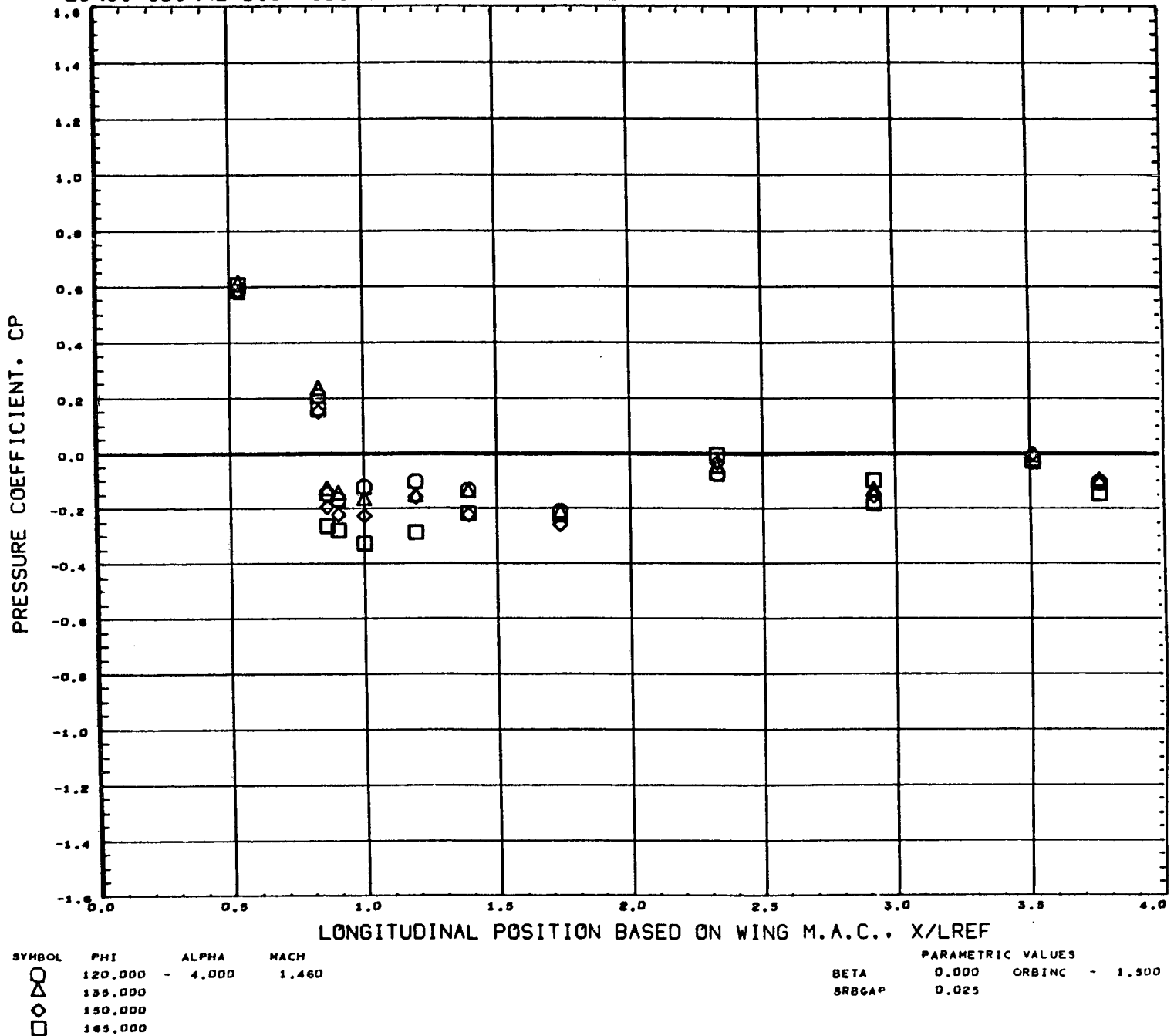
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60.000	4.000	1.460	BETA	0.000 ORBINC - 1.900
△	75.000			SRBGAP	0.025
◇	90.000				
□	105.000				

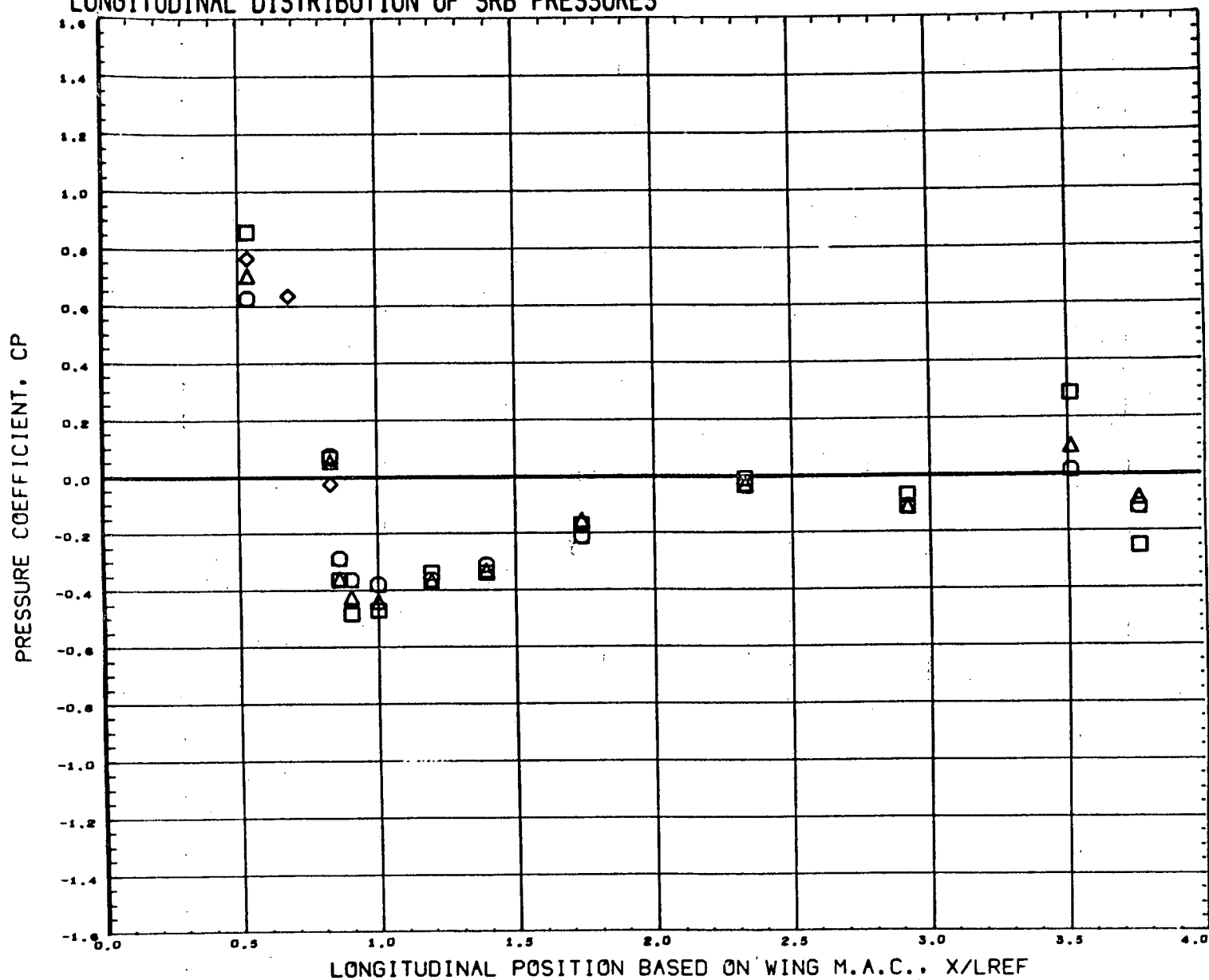
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

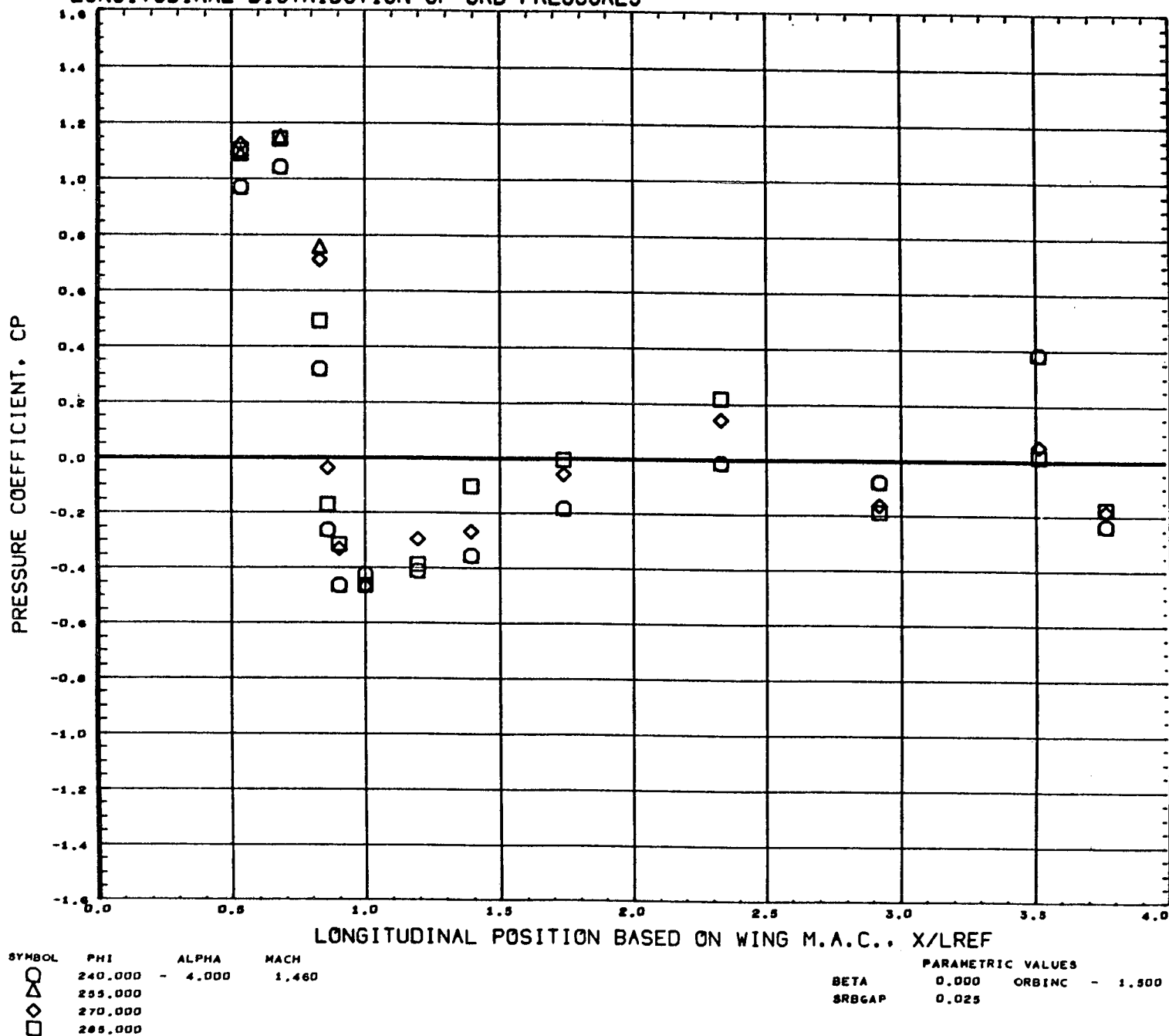


SYMBOL	PHI	ALPHA	MACH
○	180.000	4.000	1.460
◇	195.000		
△	210.000		
□	225.000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC = 1.500
SRBGAP	0.025	

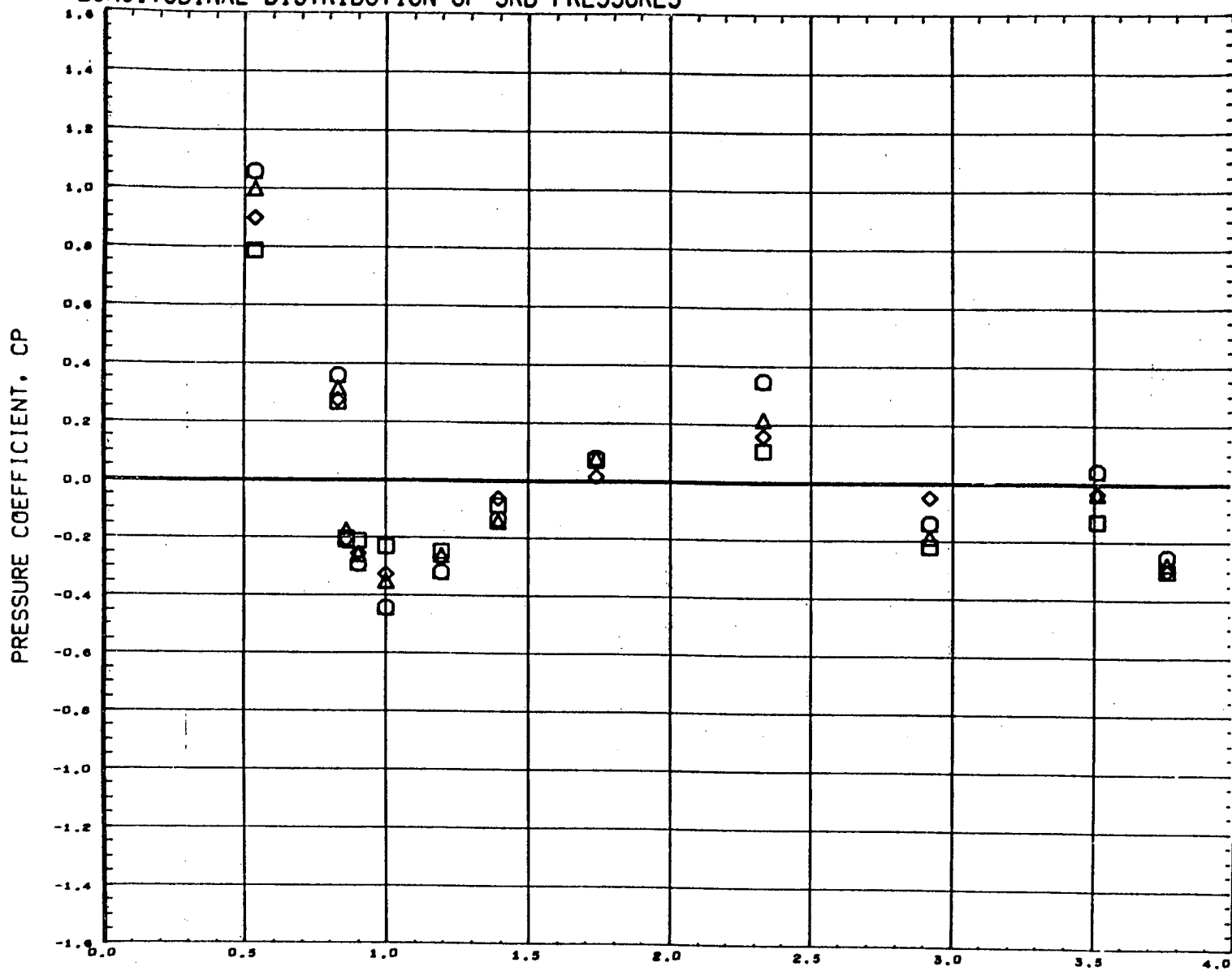
NOTE- SRB NOSE LOCATED AT X/LREF=0.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

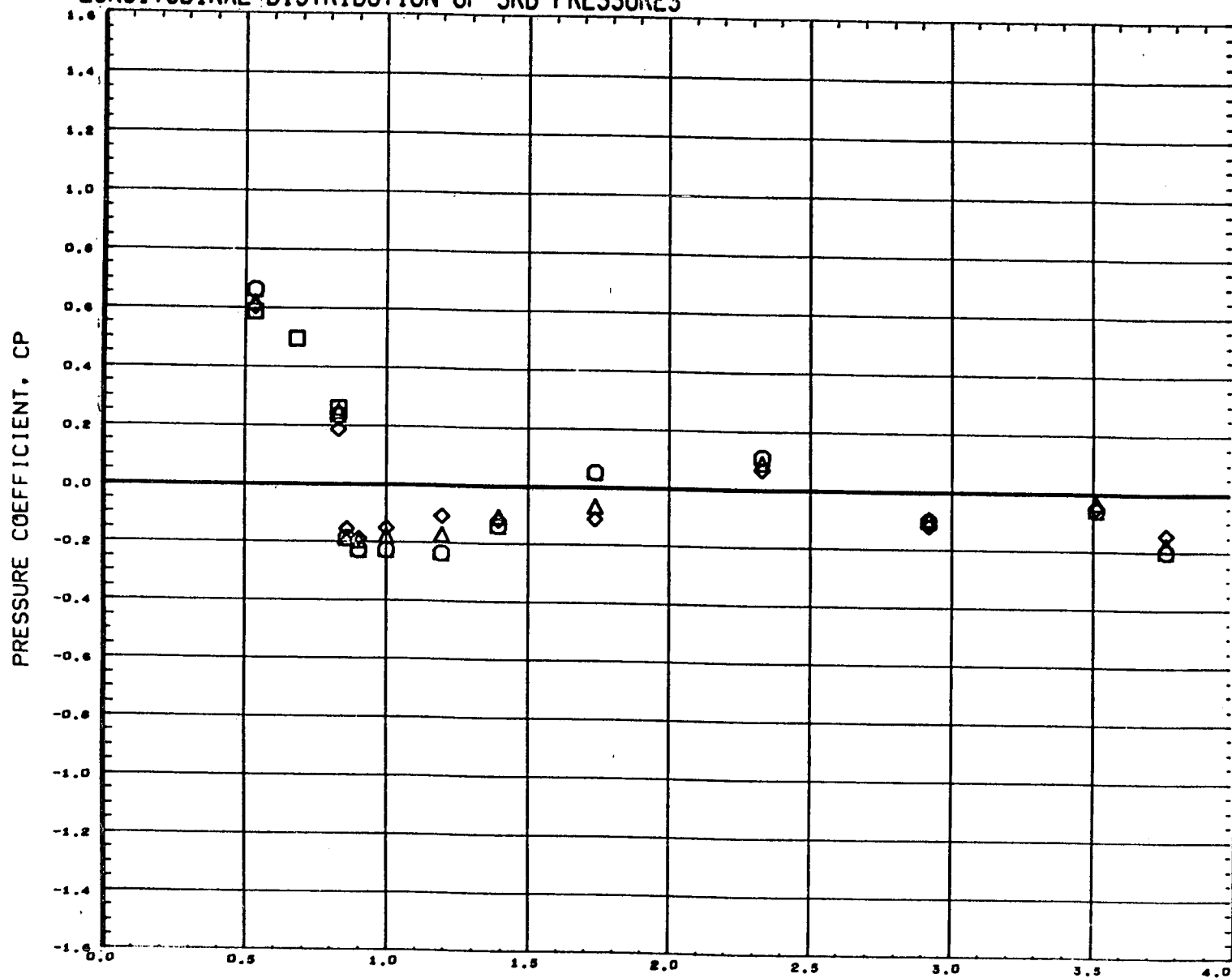
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300.000	4.000	1.460	BETA	0.000
△	315.000			ORBINC	1.500
◇	330.000				
□	345.000			SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

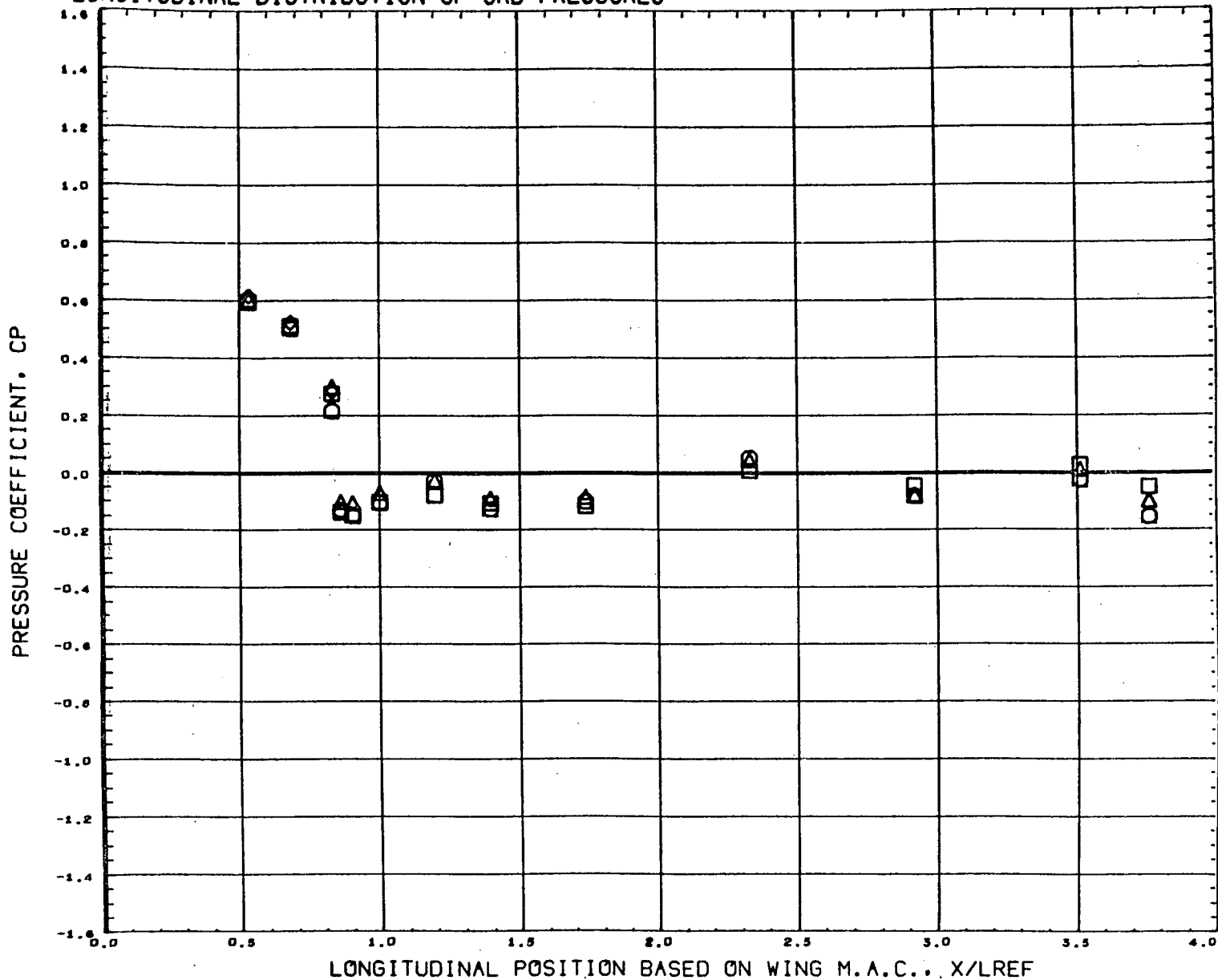
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	P(1)	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	1.460	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



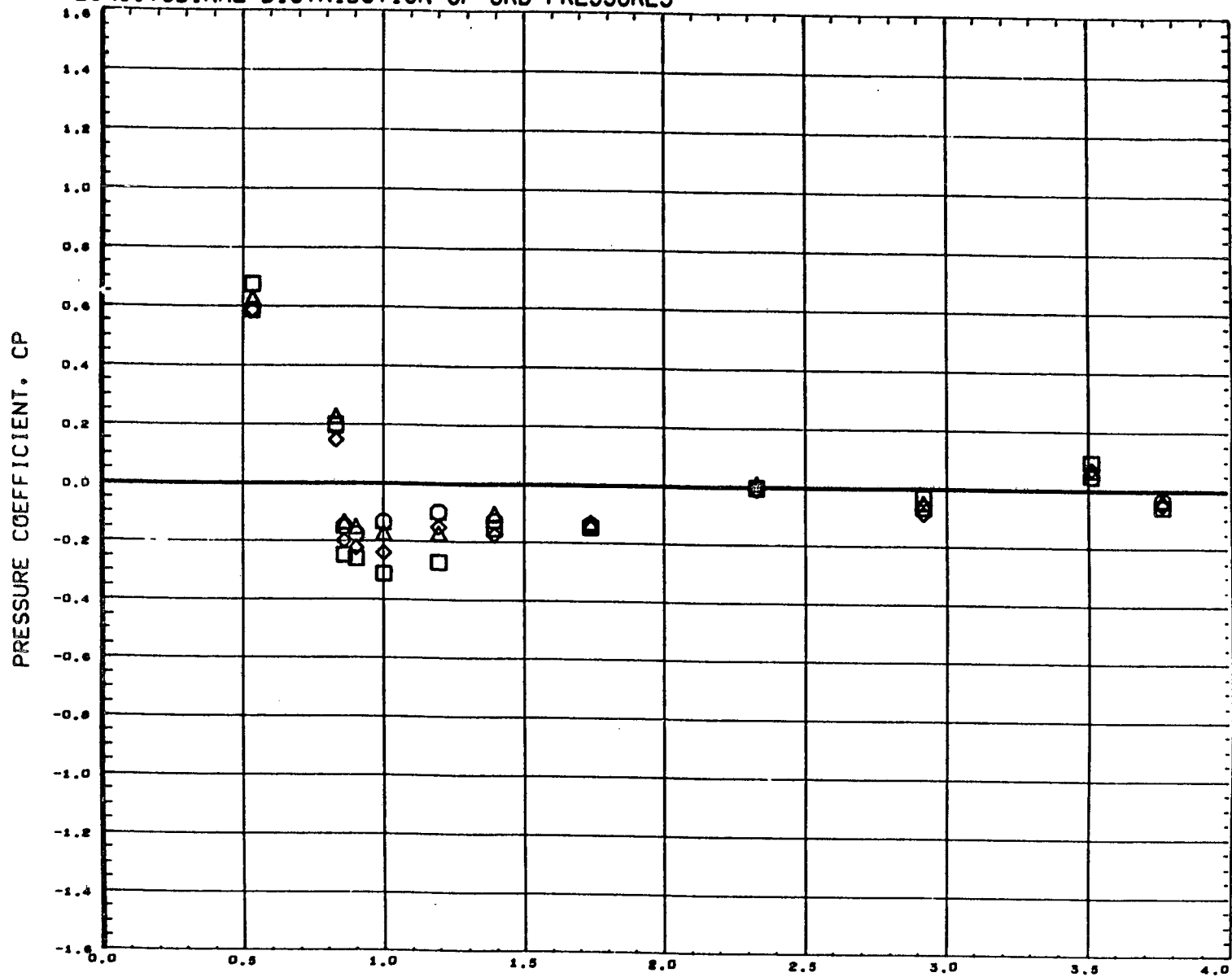
SYMBOL
○
△
◇
□

PHI	ALPHA	MACH
60,000	0.000	1.460
75,000		
90,000		
105,000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	120.000	0.000	1.460
△	135.000		
◇	150.000		
□	165.000		

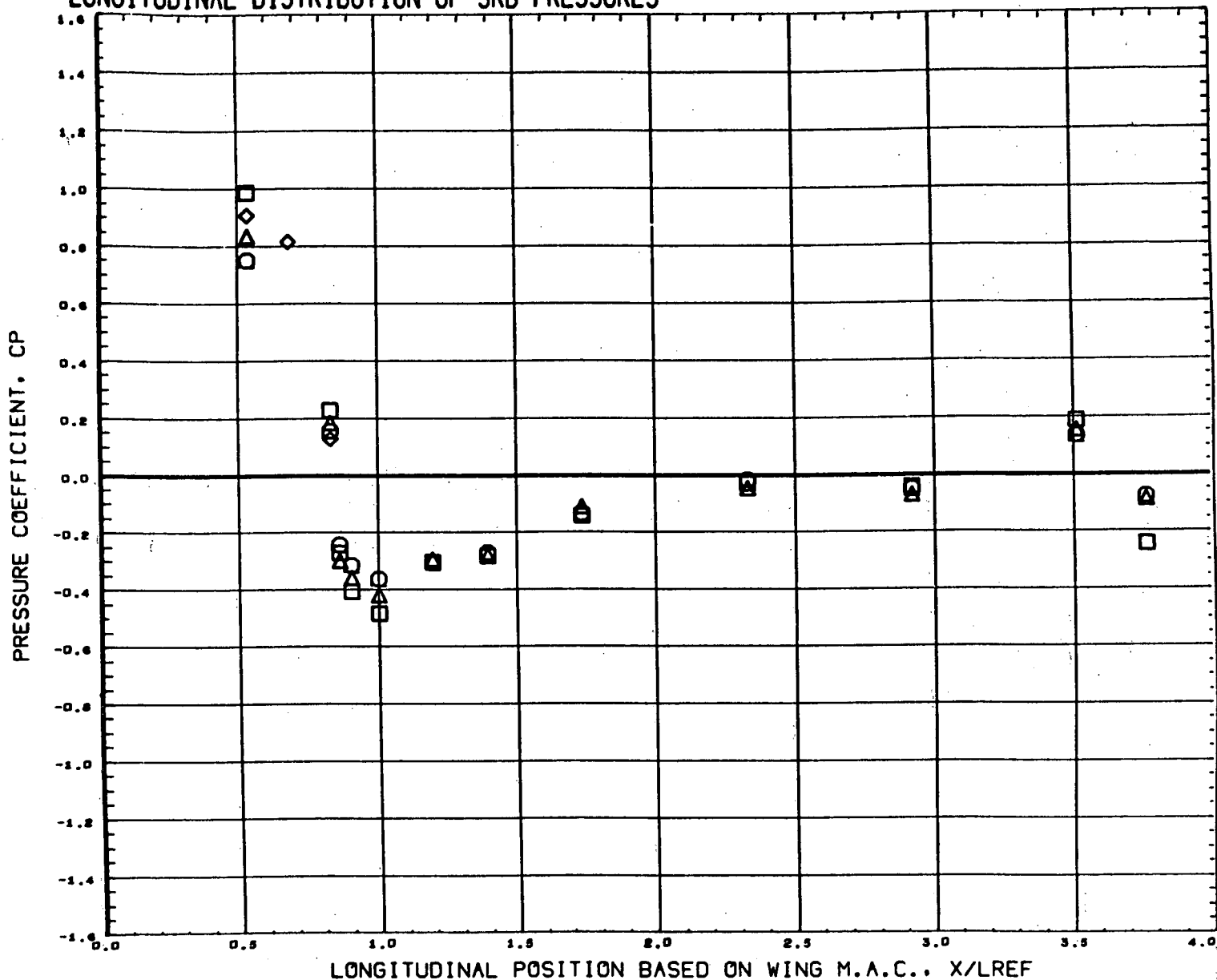
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 420

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL
 □ 180,000
 △ 195,000
 ◇ 210,000
 ○ 225,000

PHI 180,000
 ALPHA 0,000
 MACH 1.460

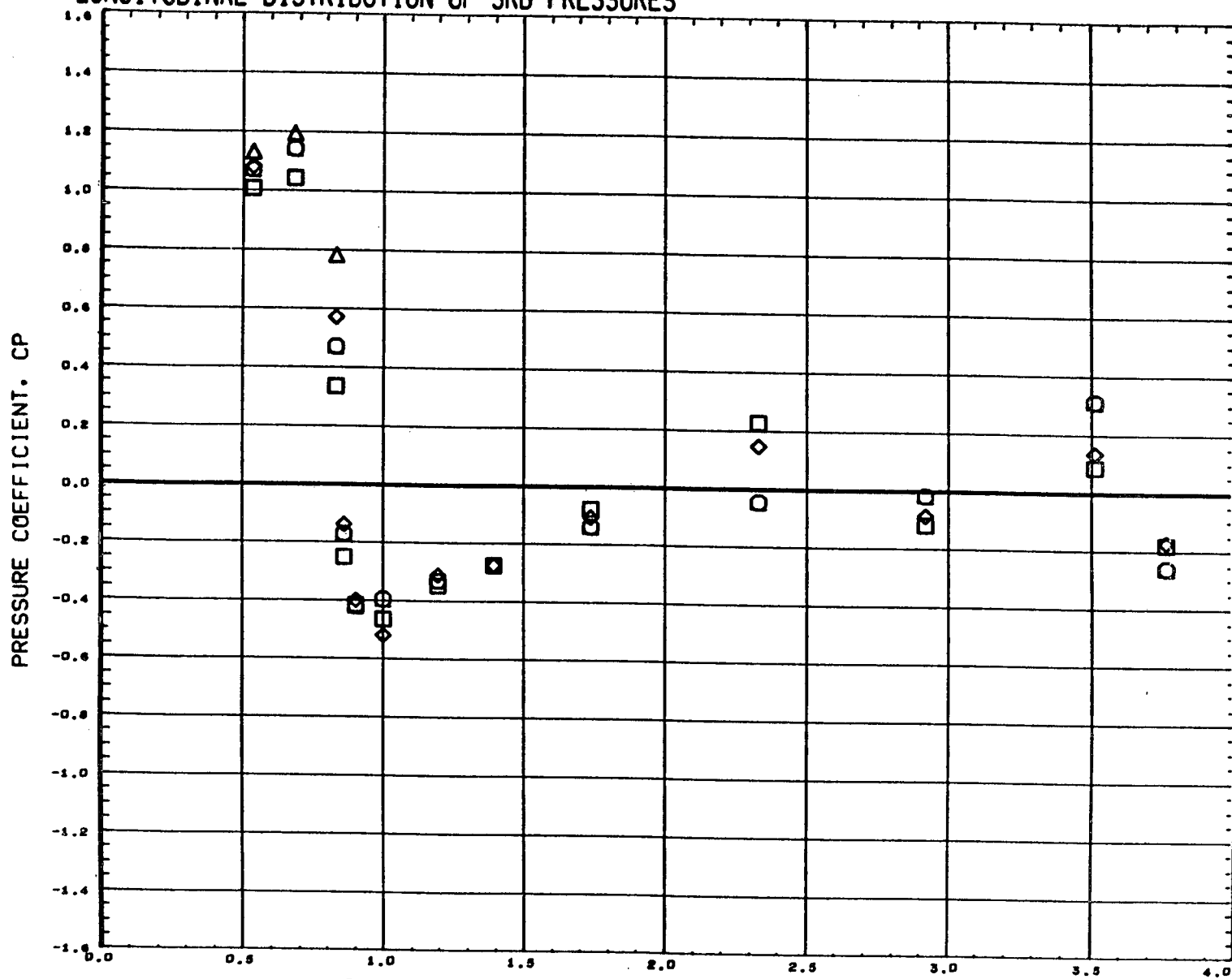
PARAMETRIC VALUES
 BETA 0,000 ORBINC - 1,500
 SRBCAP 0,025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 421

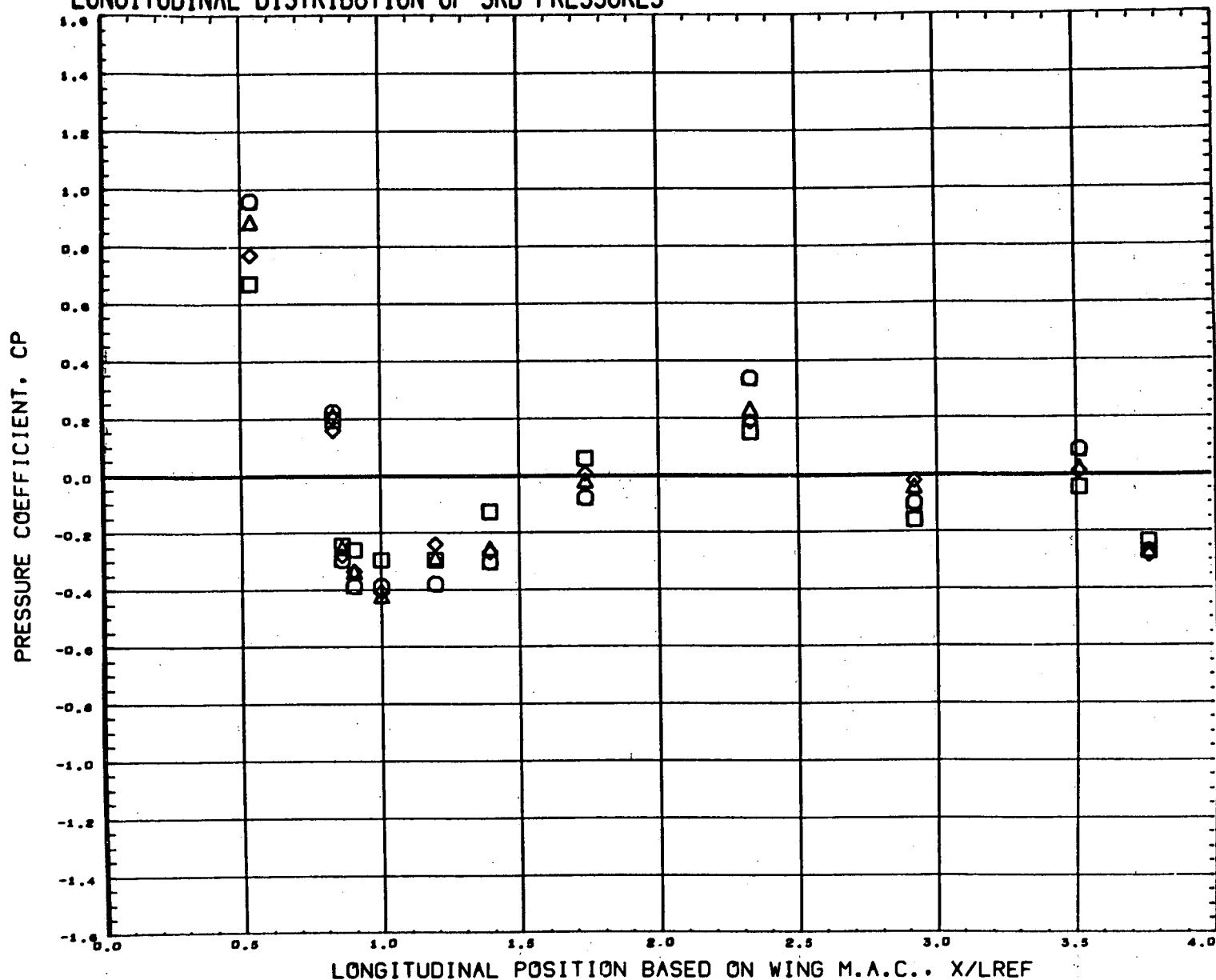
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240,000	0.000	1.460	BETA	0.000 ORBINC - 1.500
△	255,000			SRBGAP	0.025
◇	270,000				
□	285,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

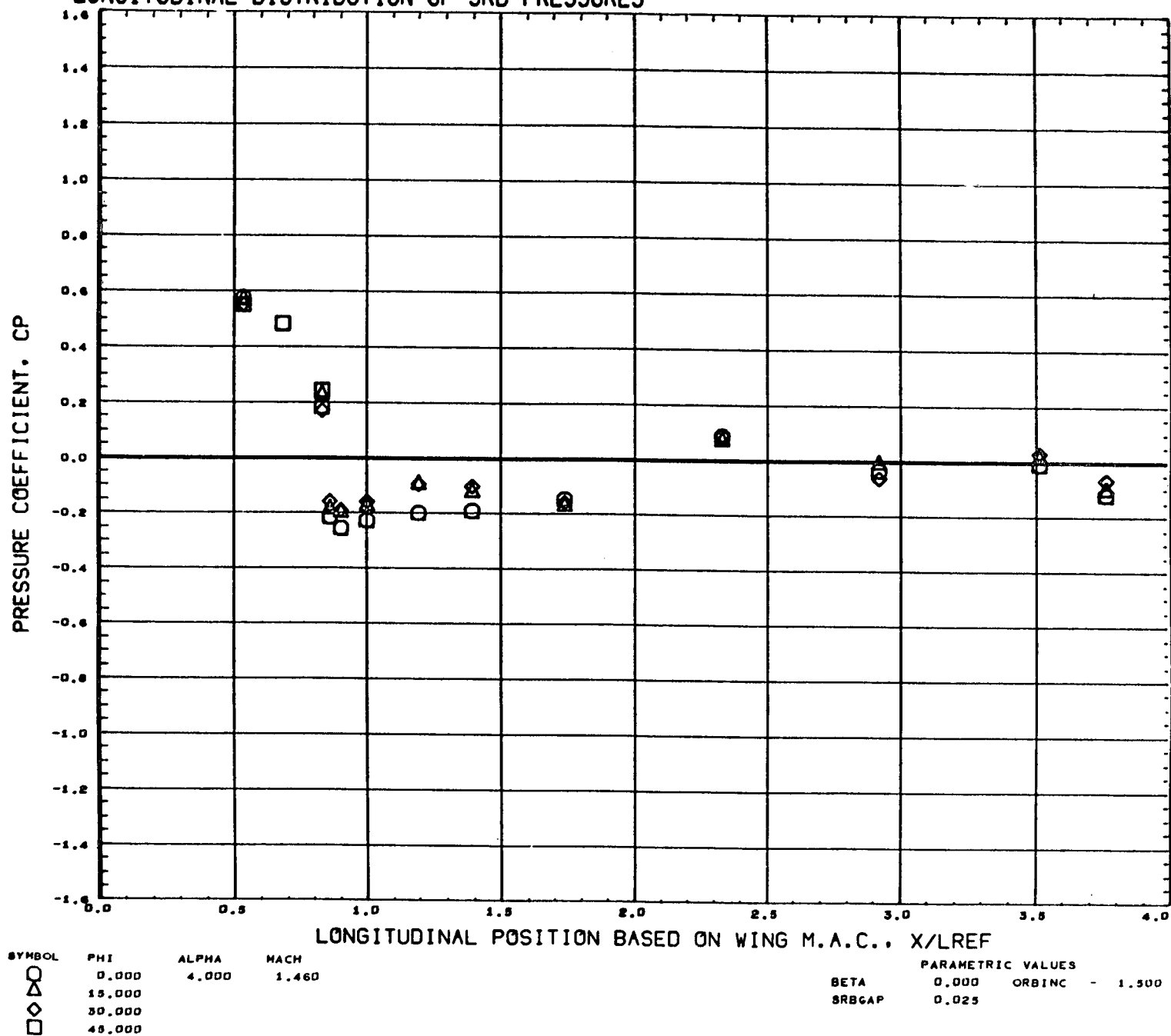
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300,000	0.000	1.460	BETA	0.000 ORBINC - 1.500
△	315,000			SRBGAP	0.025
◇	330,000				
□	345,000				

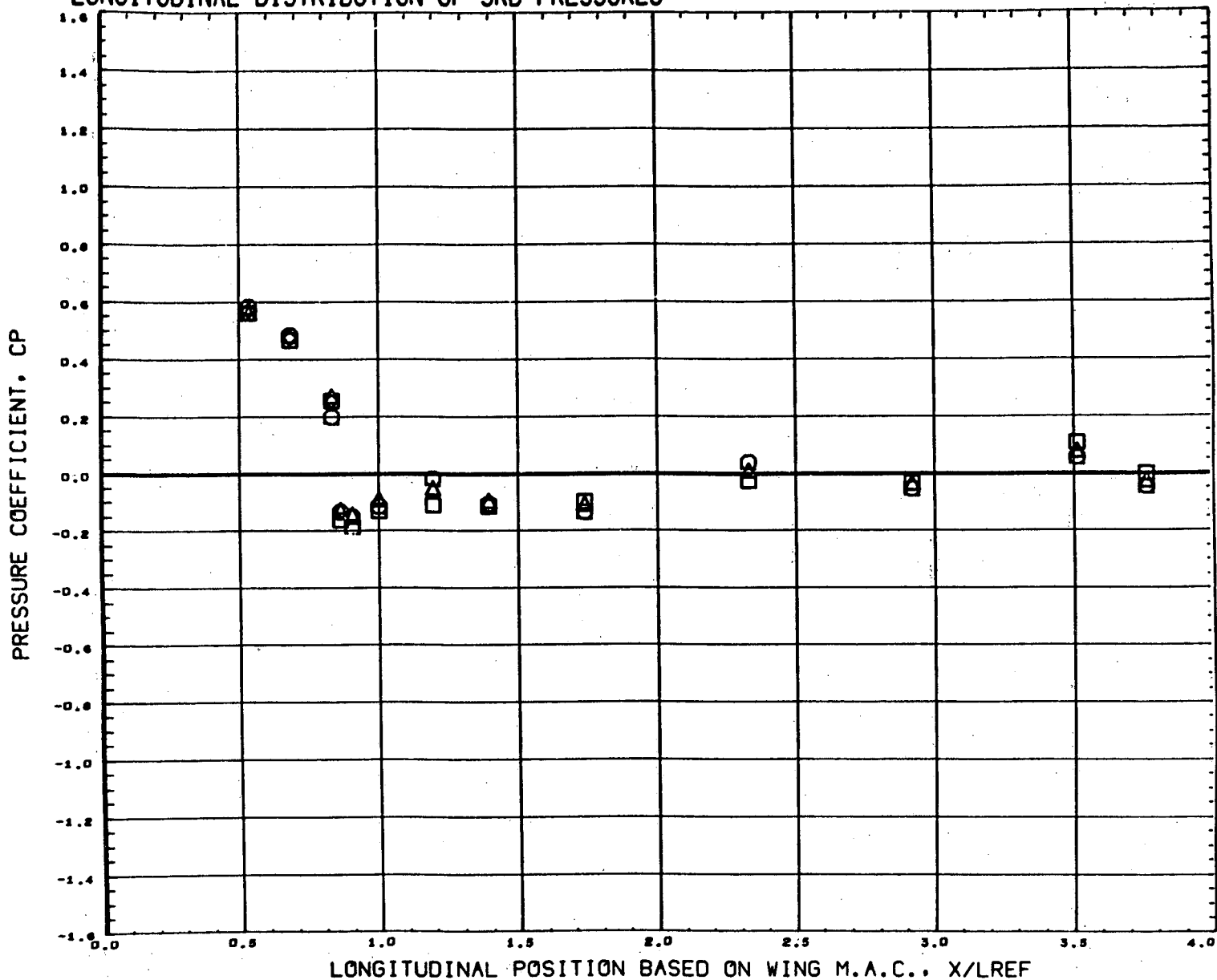
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



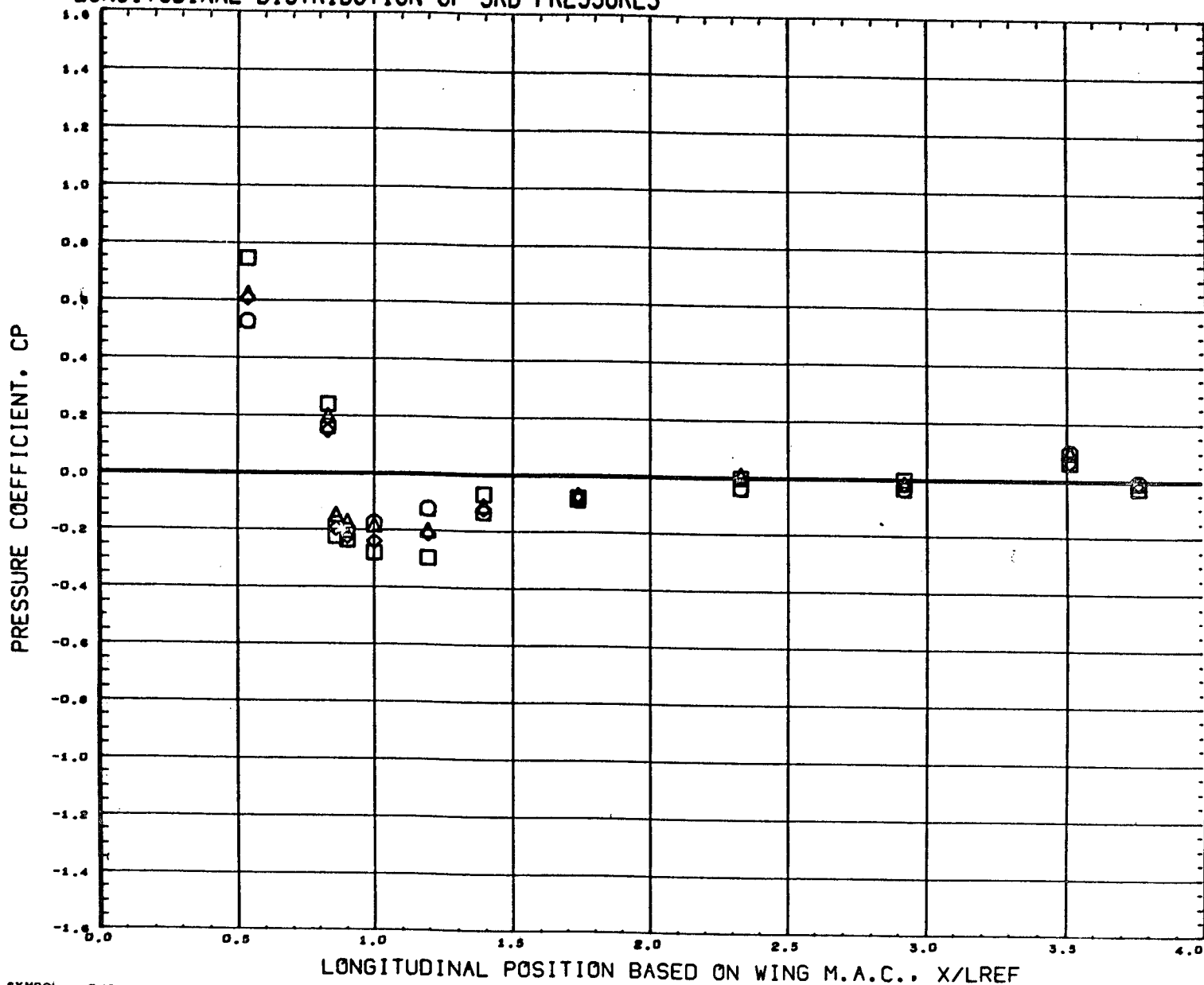
SYMBOL
 ○ 60,000
 △ 75,000
 ◇ 90,000
 □ 105,000

ALPHA 4.000
 MACH 1.460

BETA 0.000
 SRBCAP 0.025
 ORBINC - 1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

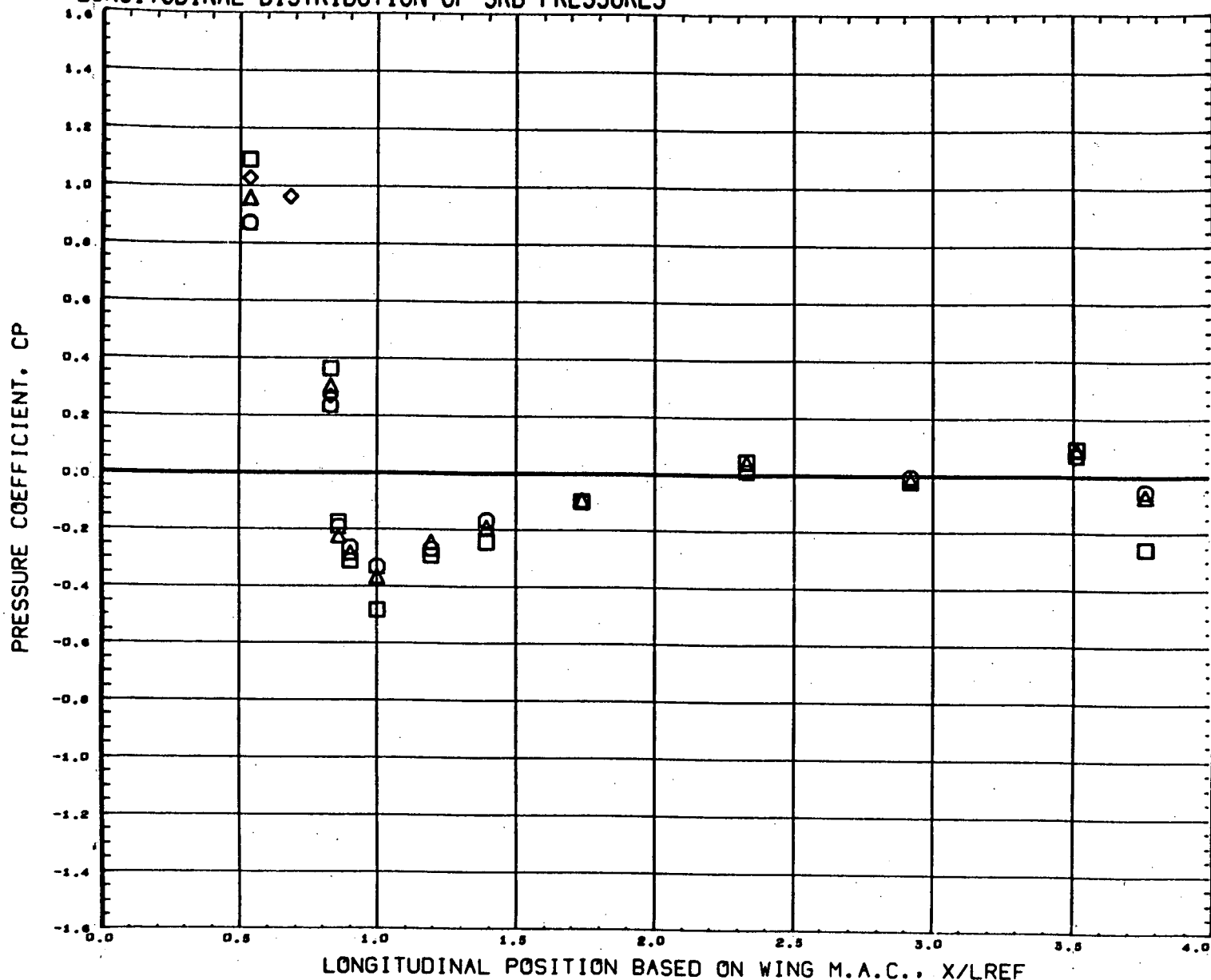
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120,000	4.000	1.460	BETA	0.000 ORBINC - 1.500
△	135,000			SRBGAP	0.025
◇	150,000				
□	165,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

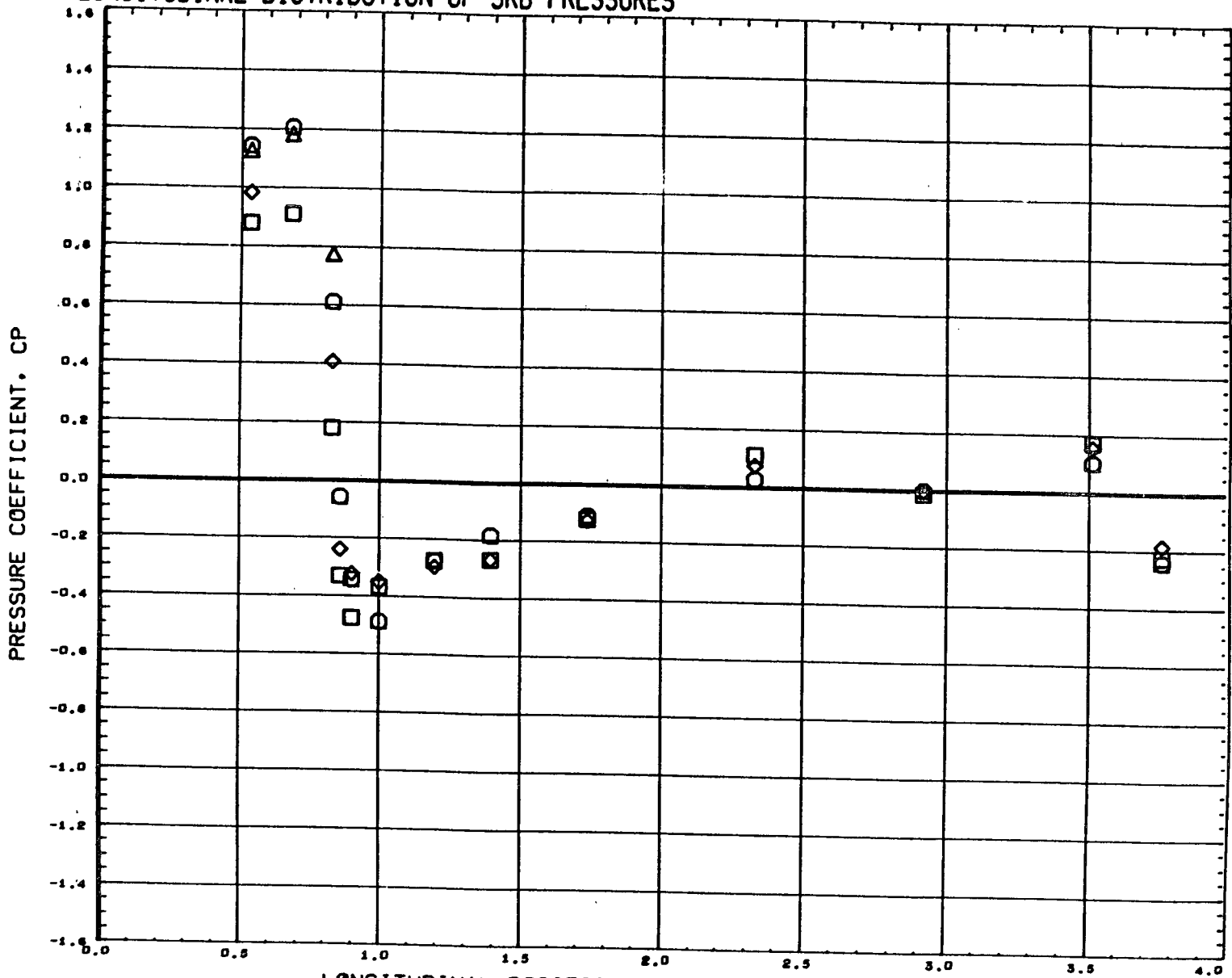
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	180.000	4.000	1.460	BETA	0.000
△	195.000			SRBCAP	0.025
◇	210.000				
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



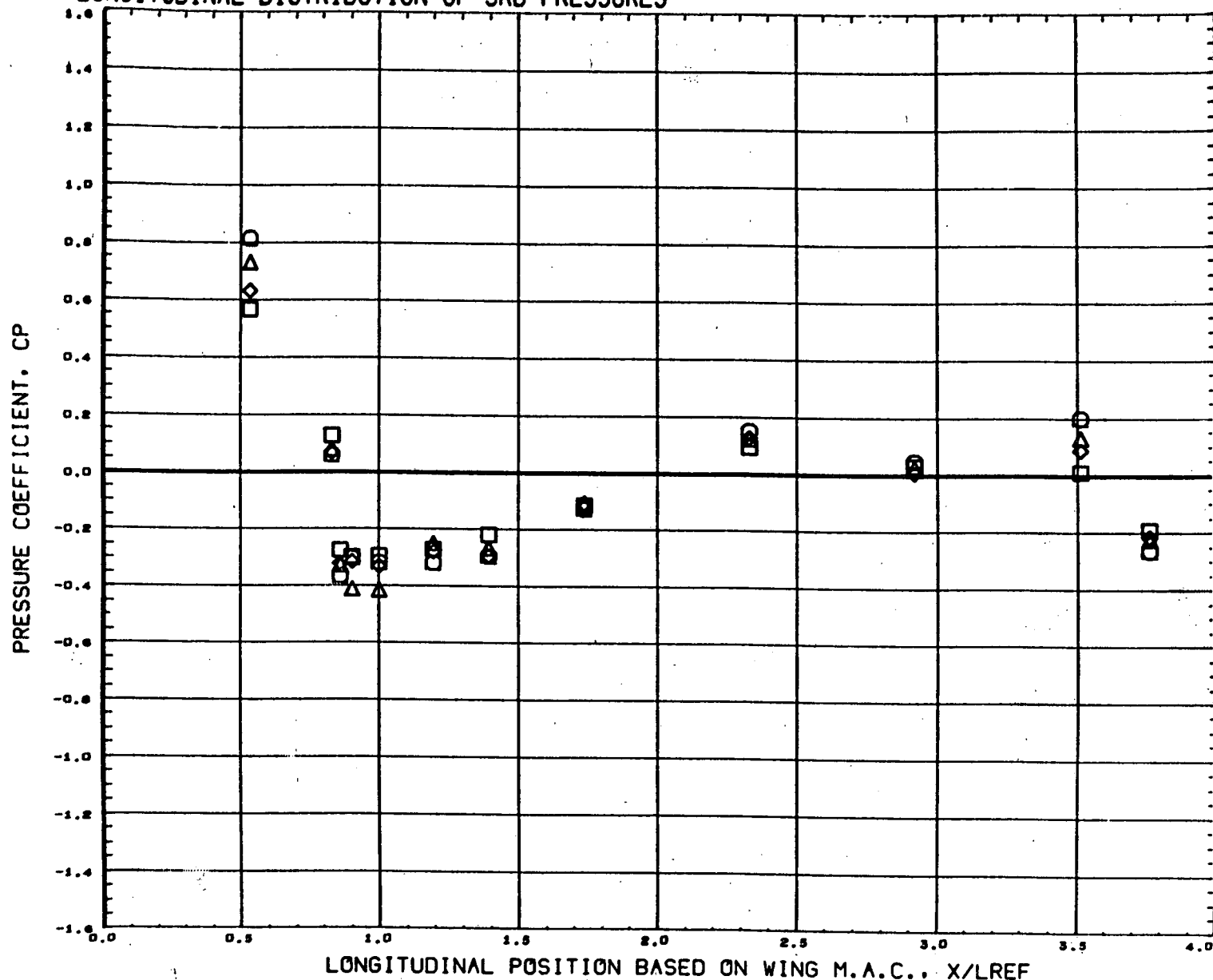
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	4.000	1.460	BETA	0.000	ORBINC - 1.500
△	255.000			SRBCAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 428

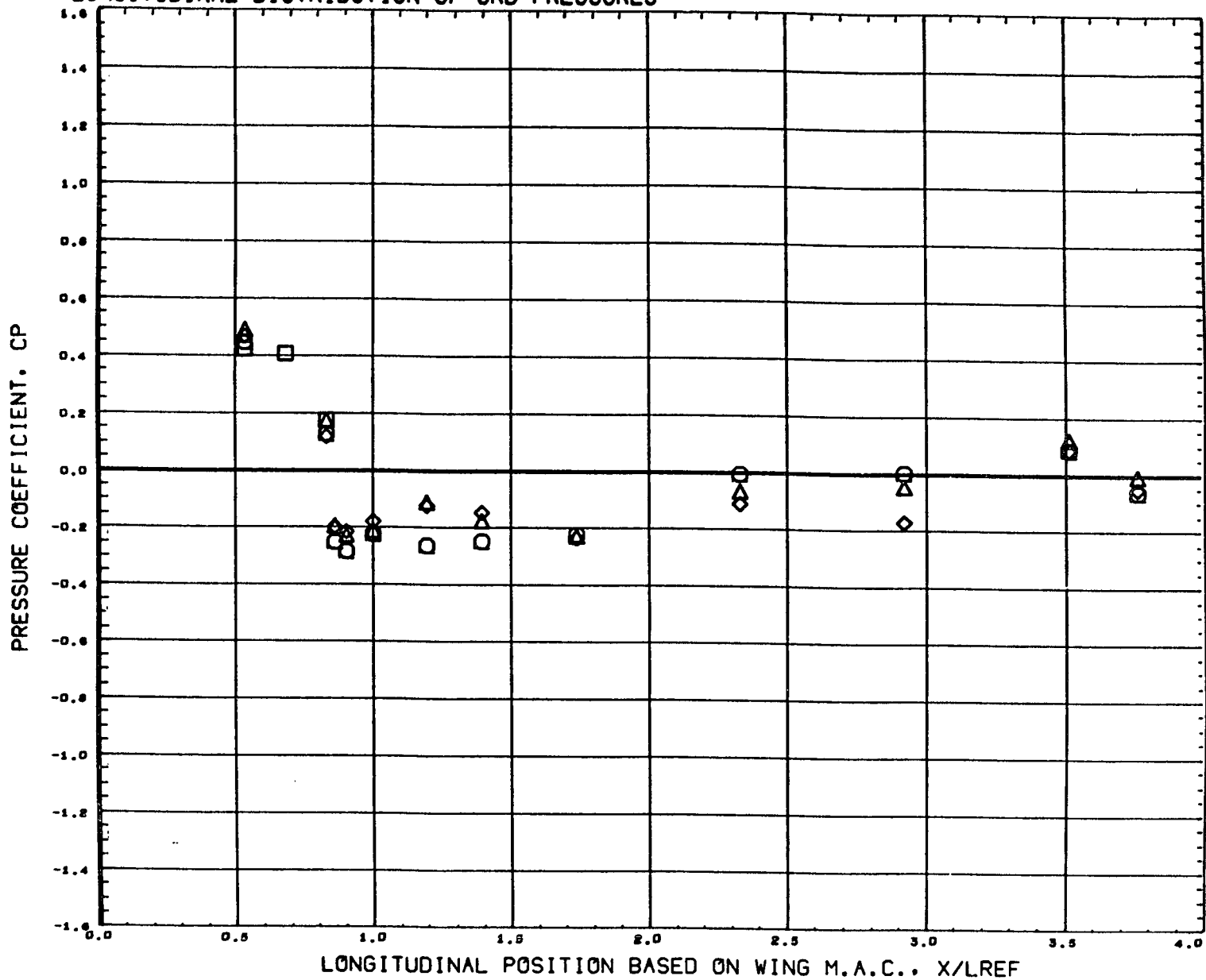
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300,000	4.000	1.460	BETA	0.000 ORBINC - 1.500
△	315,000			SRBGAP	0.025
◇	330,000				
□	345,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

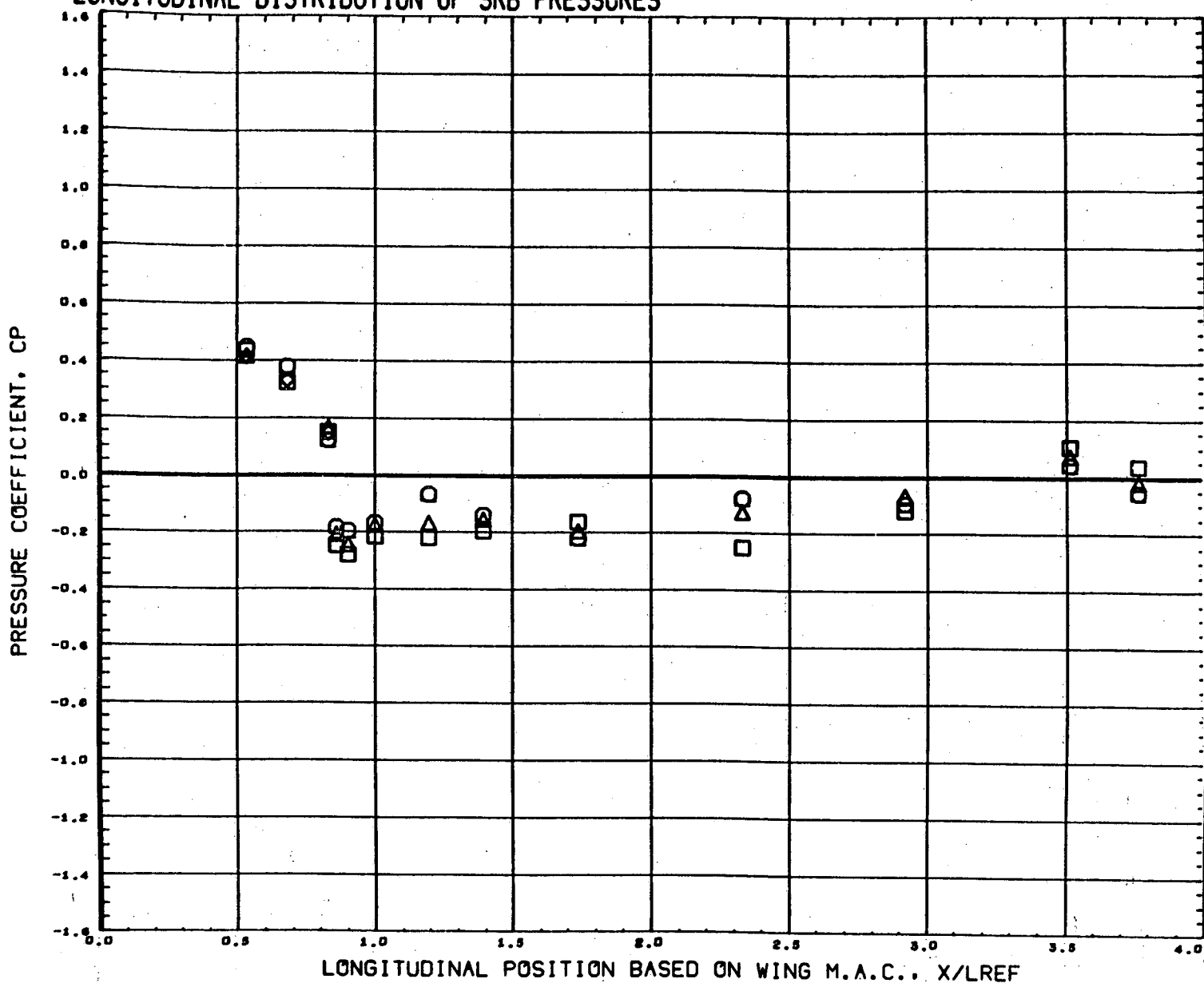
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	1.460	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



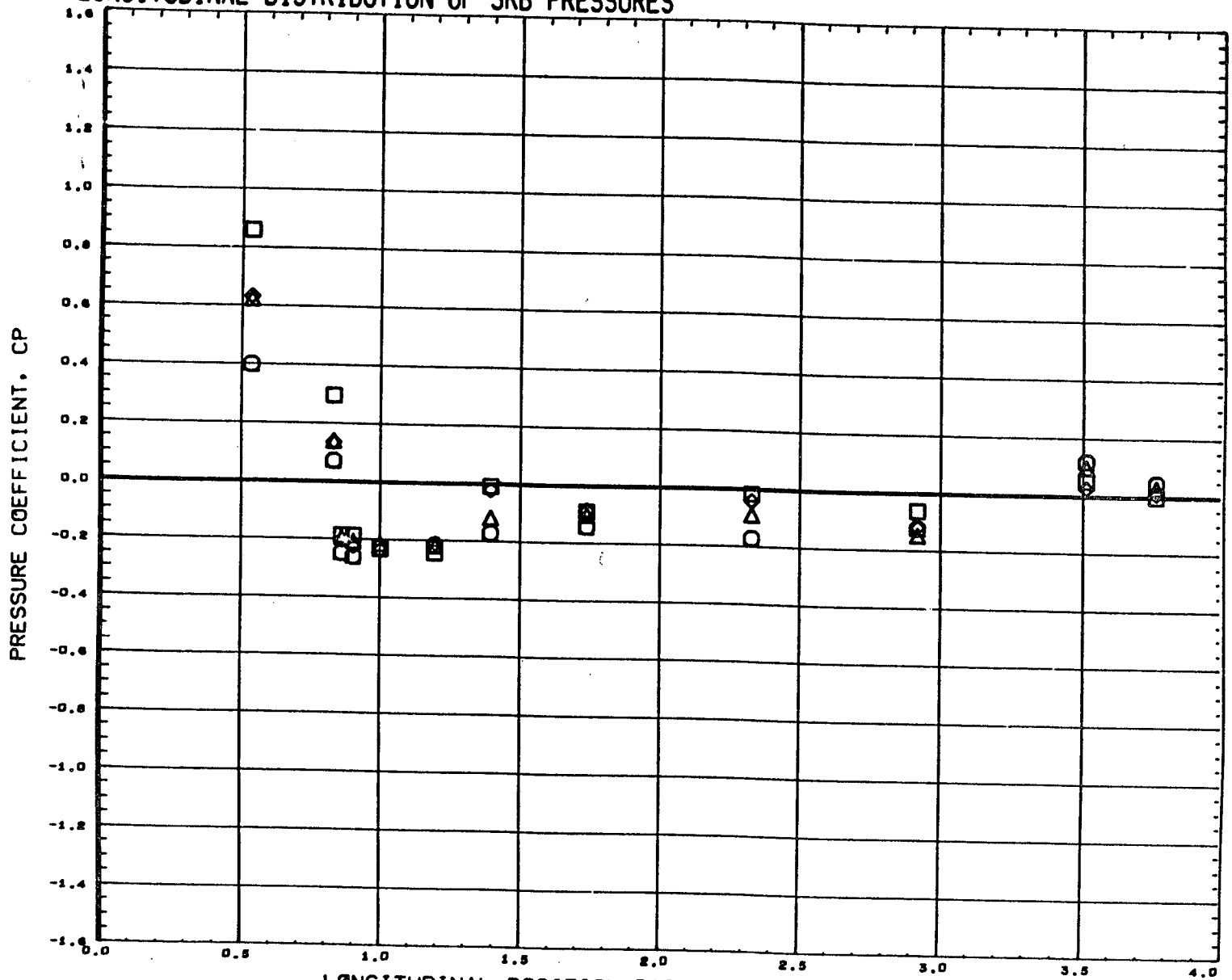
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	60,000	10,000	1.460	BETA	0.000 ORBINC - 1.500
△	75,000			SRBCAP	0.025
◇	90,000				
□	105,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 431

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

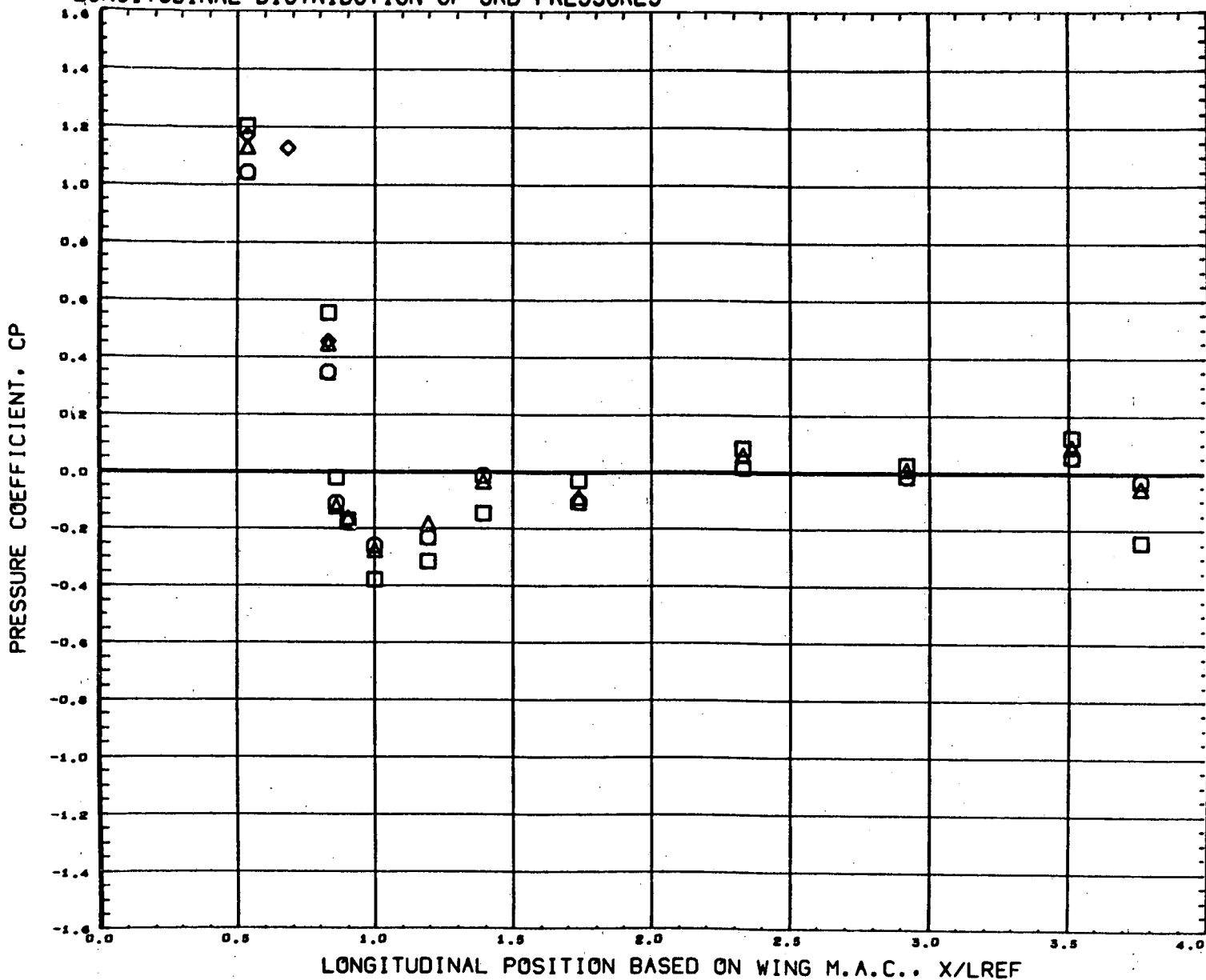


SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120.000	10.000	1.460	BETA	0.000
△	135.000			SRBGAP	0.025
◇	150.000			ORBINC	- 1.500
□	165.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

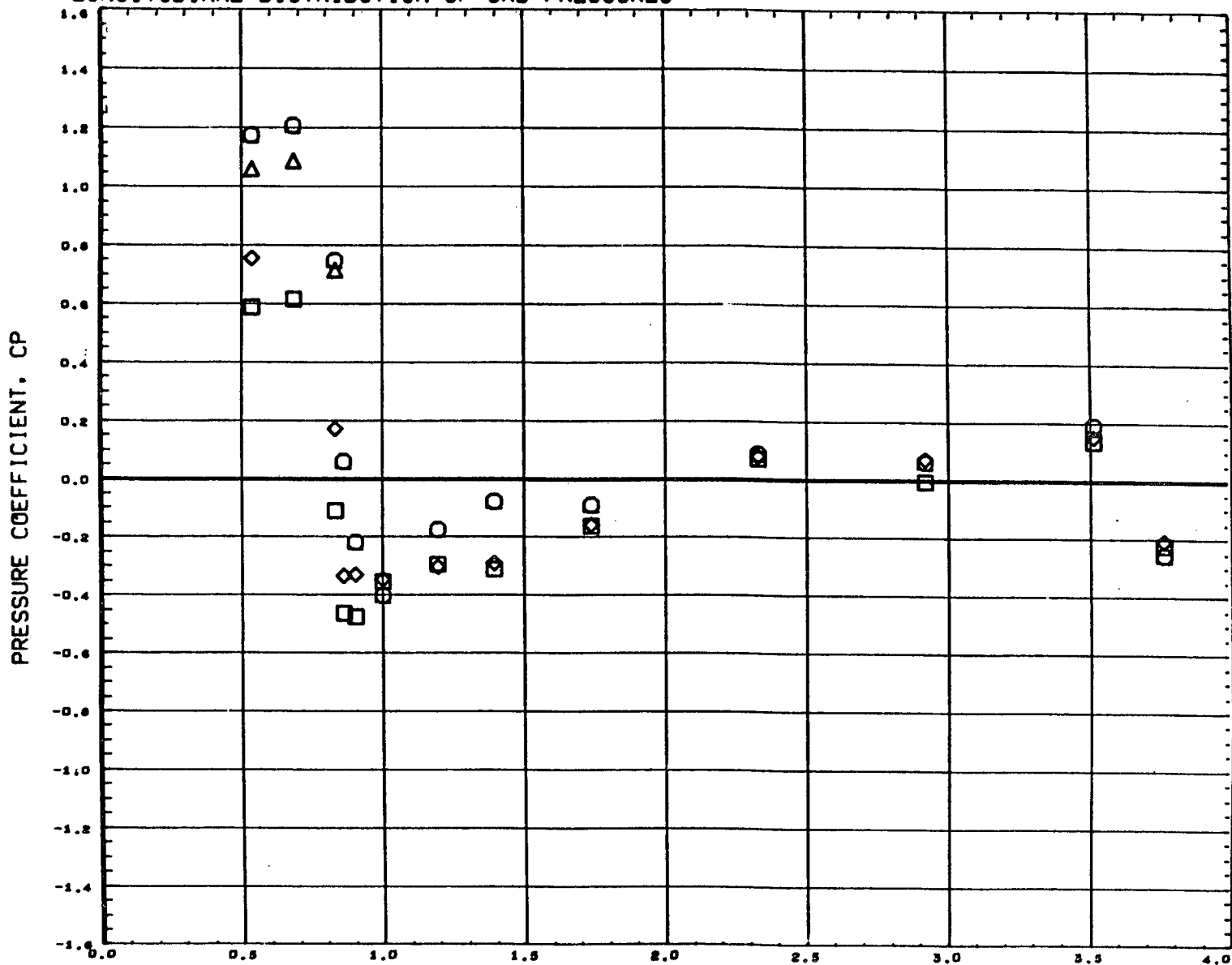
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	180,000	10.000	1.460	BETA	0.000 ORBINC - 1.500
△	195,000			SRBGAP	0.025
◇	210,000				
□	225,000				

NOTE- SRB NOSE LOCATED AT X/LREF=0.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

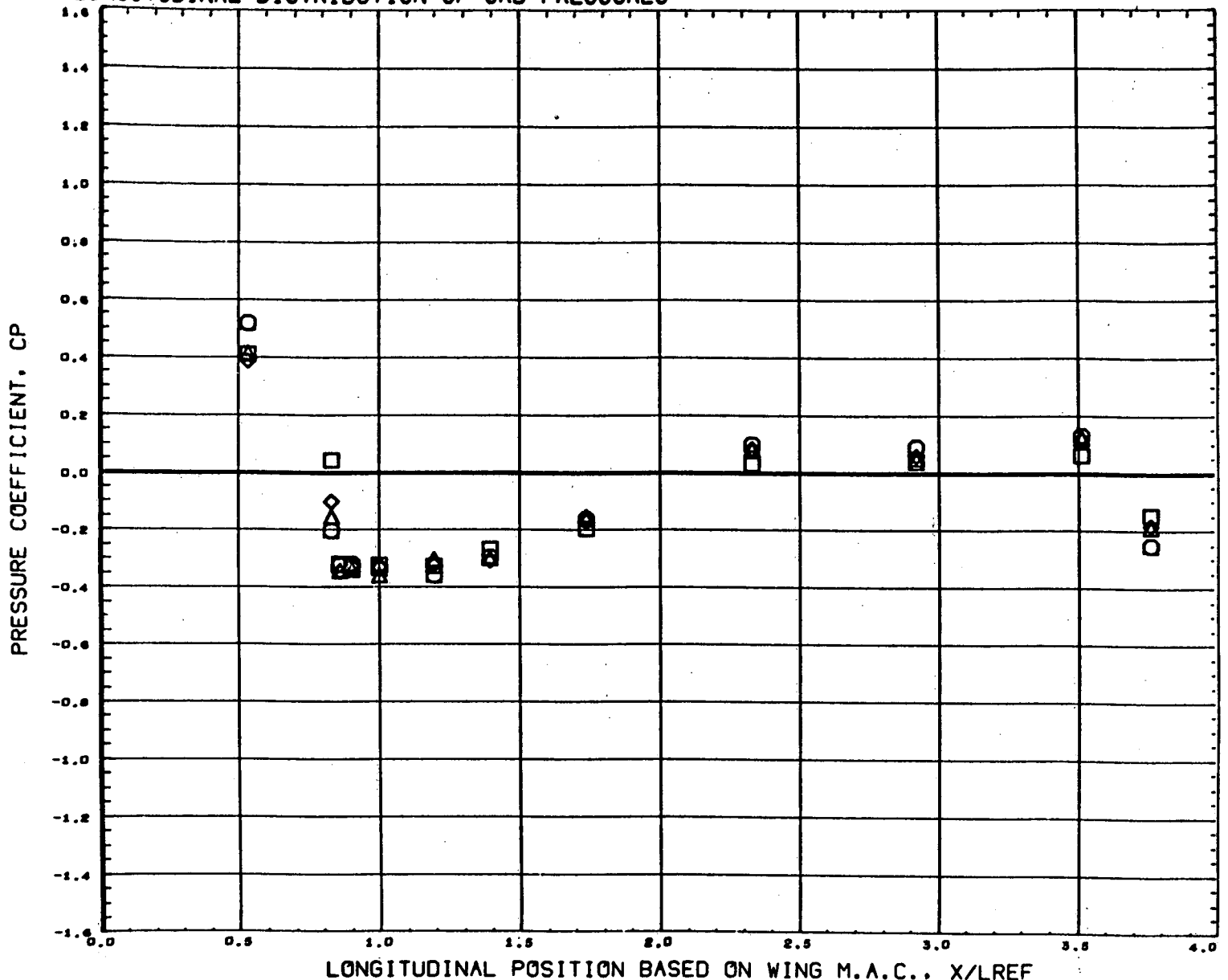


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	240.000	10.000	1.460	BETA	0.000 ORBINC - 1.500
△	255.000			SRBCAP	0.025
◇	270.000				
□	285.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

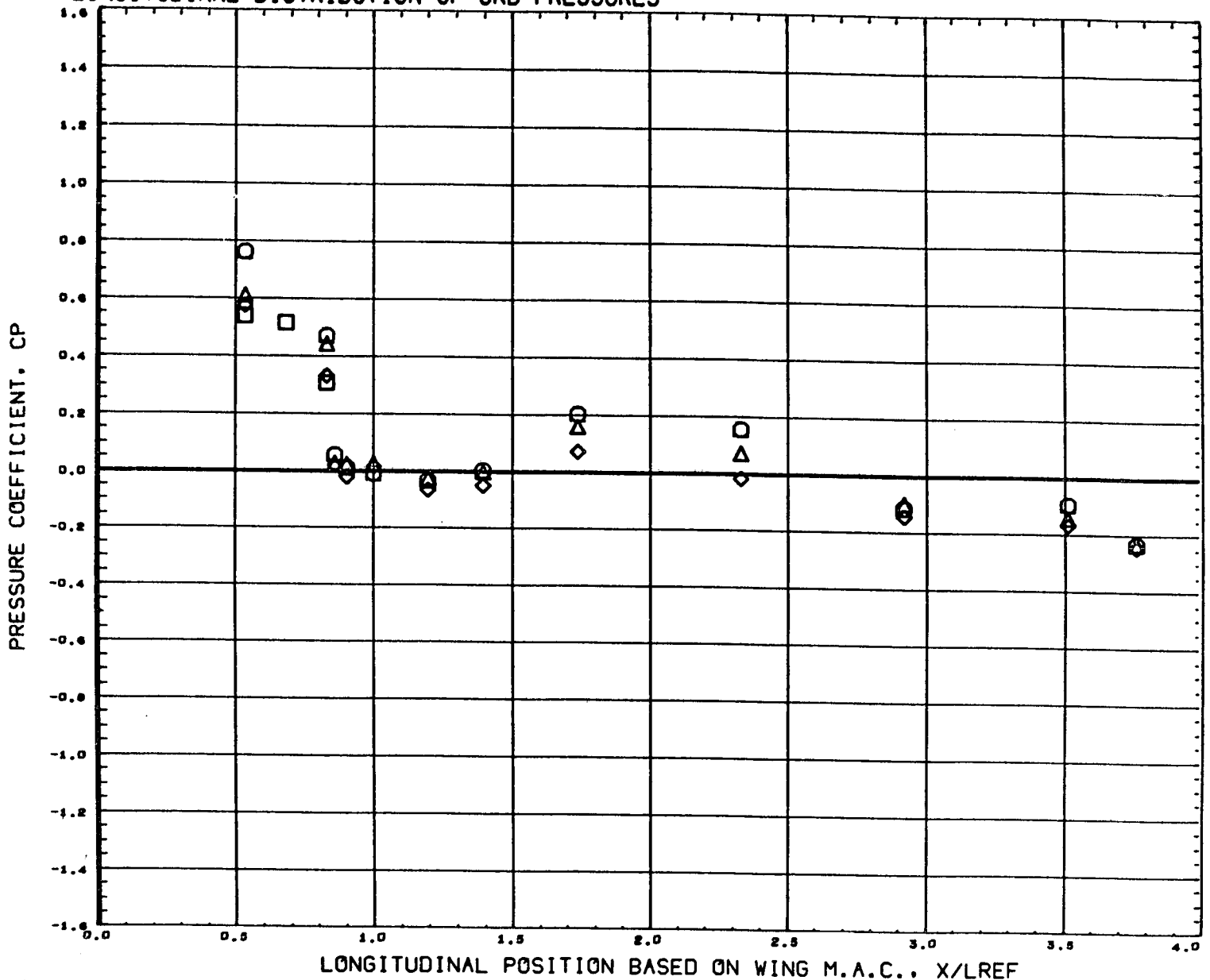


SYMBOL ○ △ ◇ □	PHI 300,000 315,000 330,000 345,000	ALPHA 10.000	MACH 1.460	BETA 0.000	SRBGAP 0.025	PARAMETRIC VALUES ORBINC - 1.500
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NOTE- SRB NOSE LOCATED AT X/LREF=.369

G

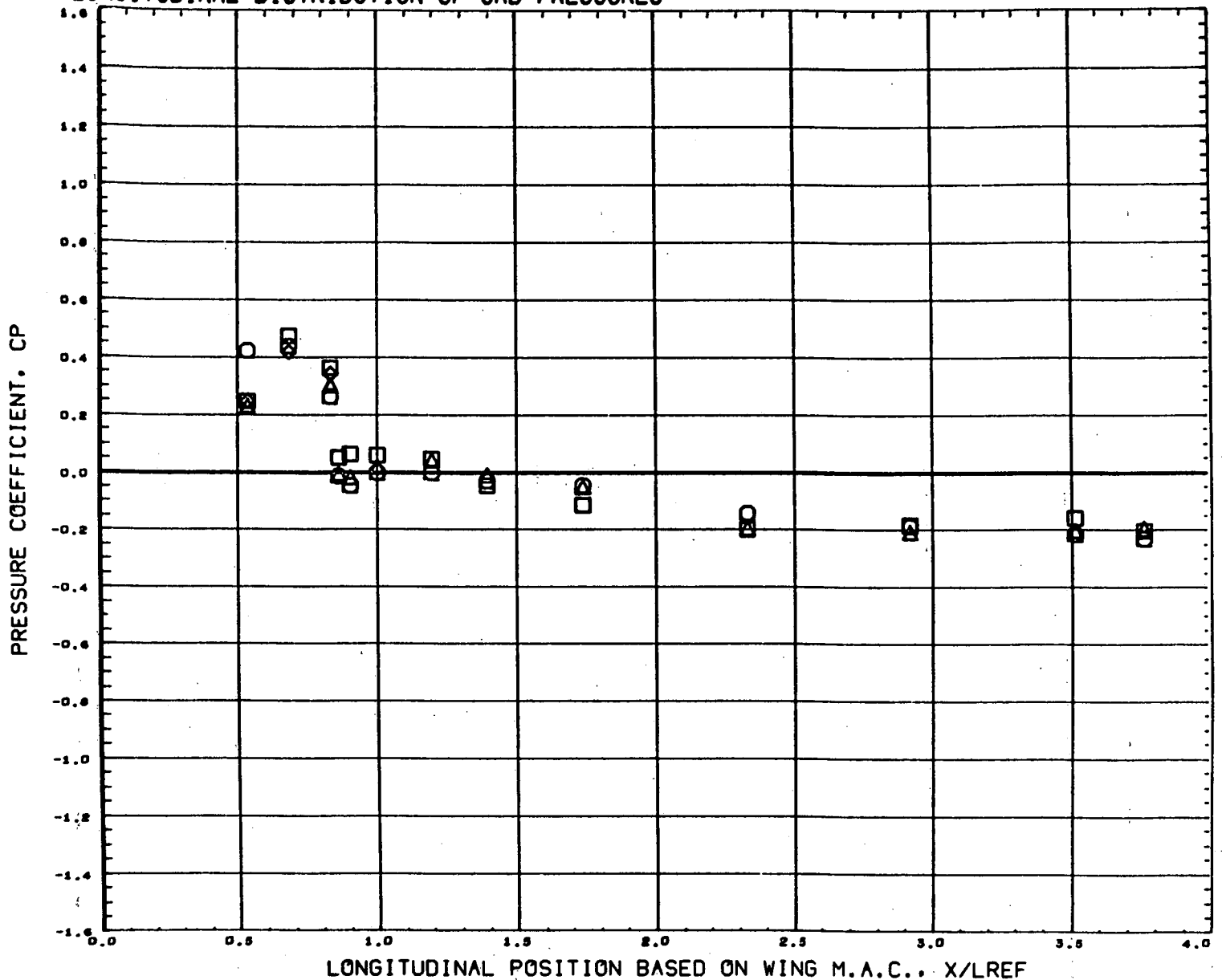
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	- 10.000	1.960	BETA	0.000 ORBINC - 1.500
□	15.000			SRBCAP	0.025
△	30.000				
◇	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

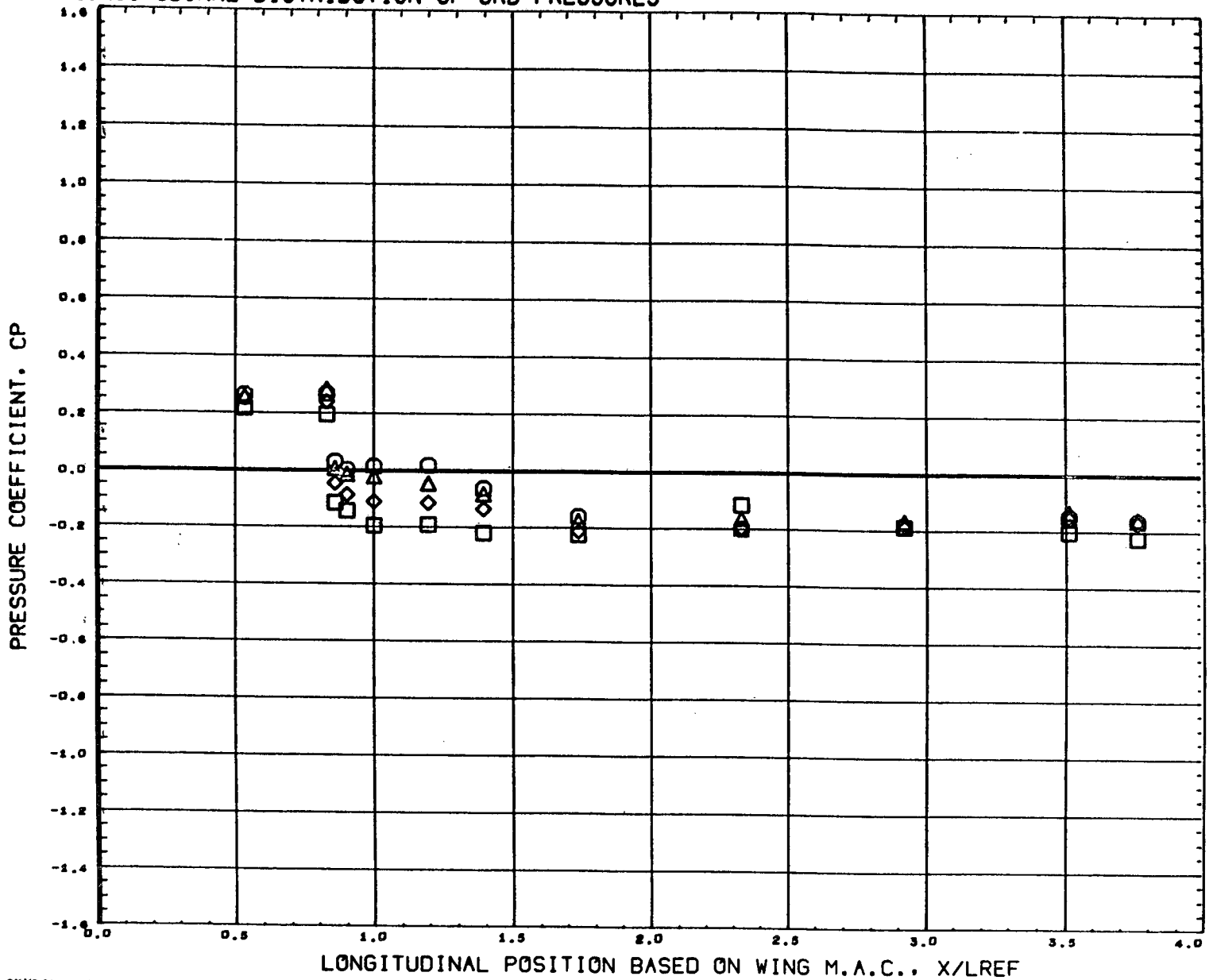
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	- 10.000	1.960	BETA	0.000	ORBINC - 1.500
△	78.000			SRBGAP	0.025	
◇	90.000					
□	108.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

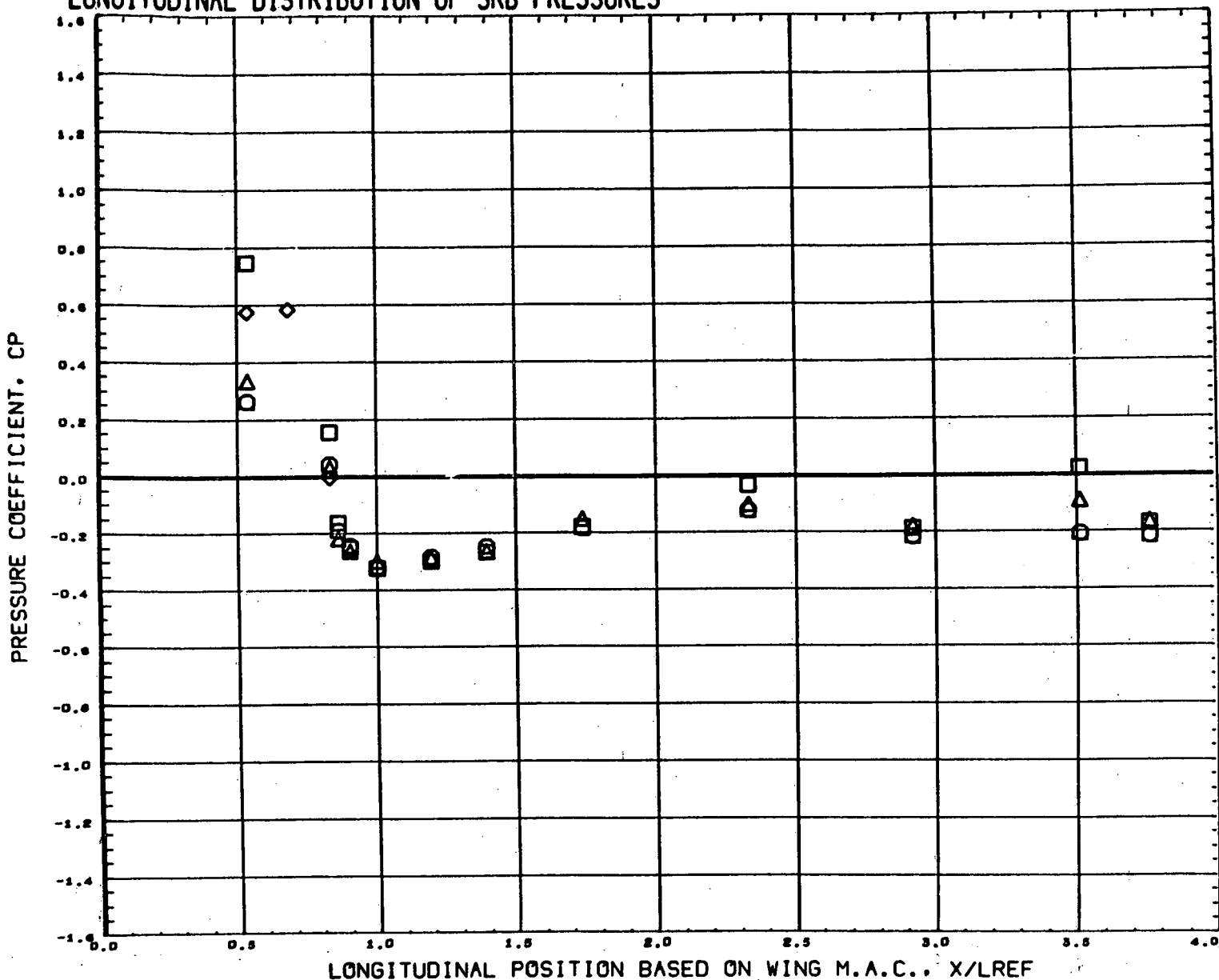


SYMBOL PHI ALPHA MACH
 ○ 120.000 - 10.000 1.960
 △ 135.000
 ◇ 150.000
 □ 165.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 180,000 - 10.000 1.960
 △ 195,000
 ◇ 210,000
 □ 225,000

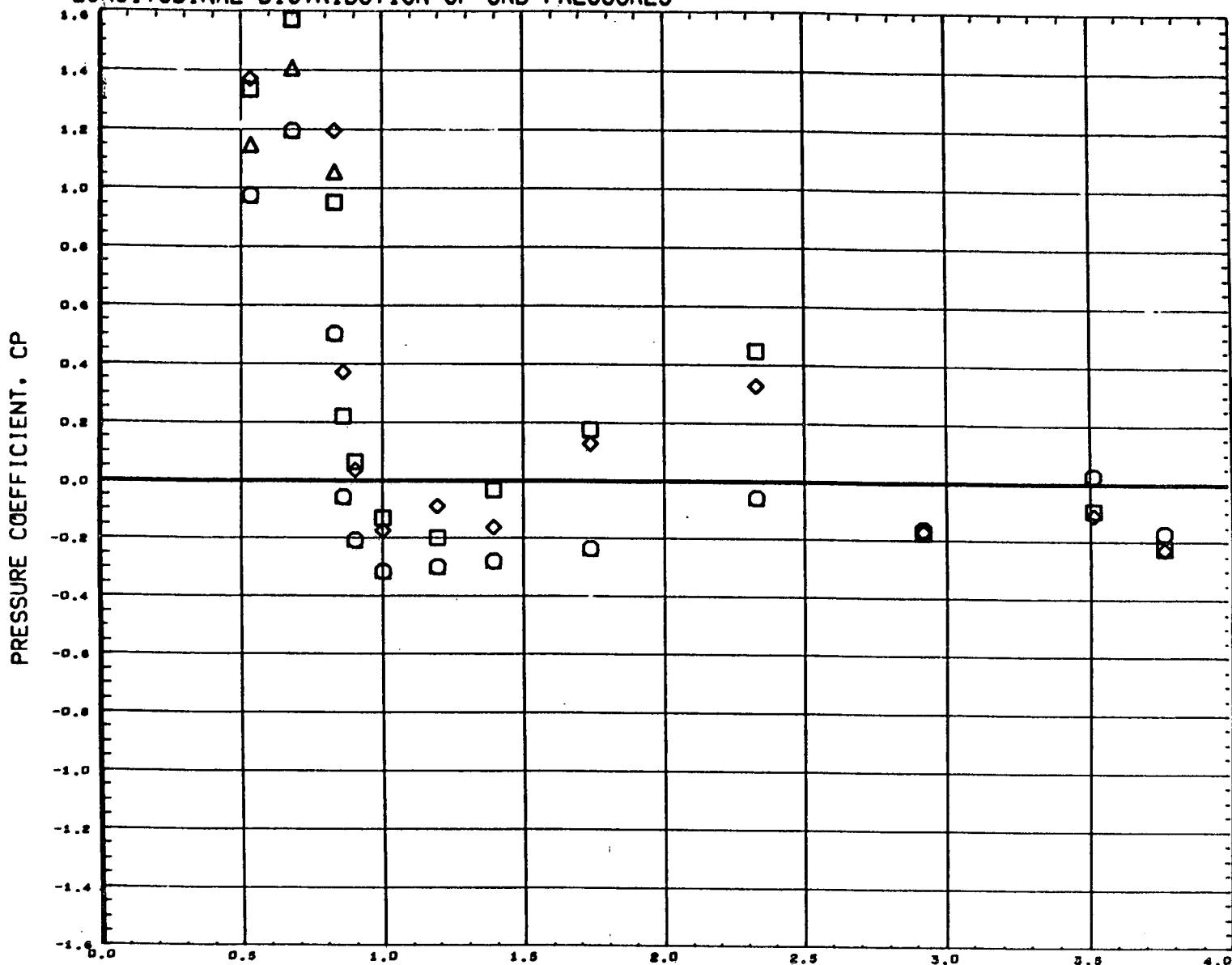
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 439

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

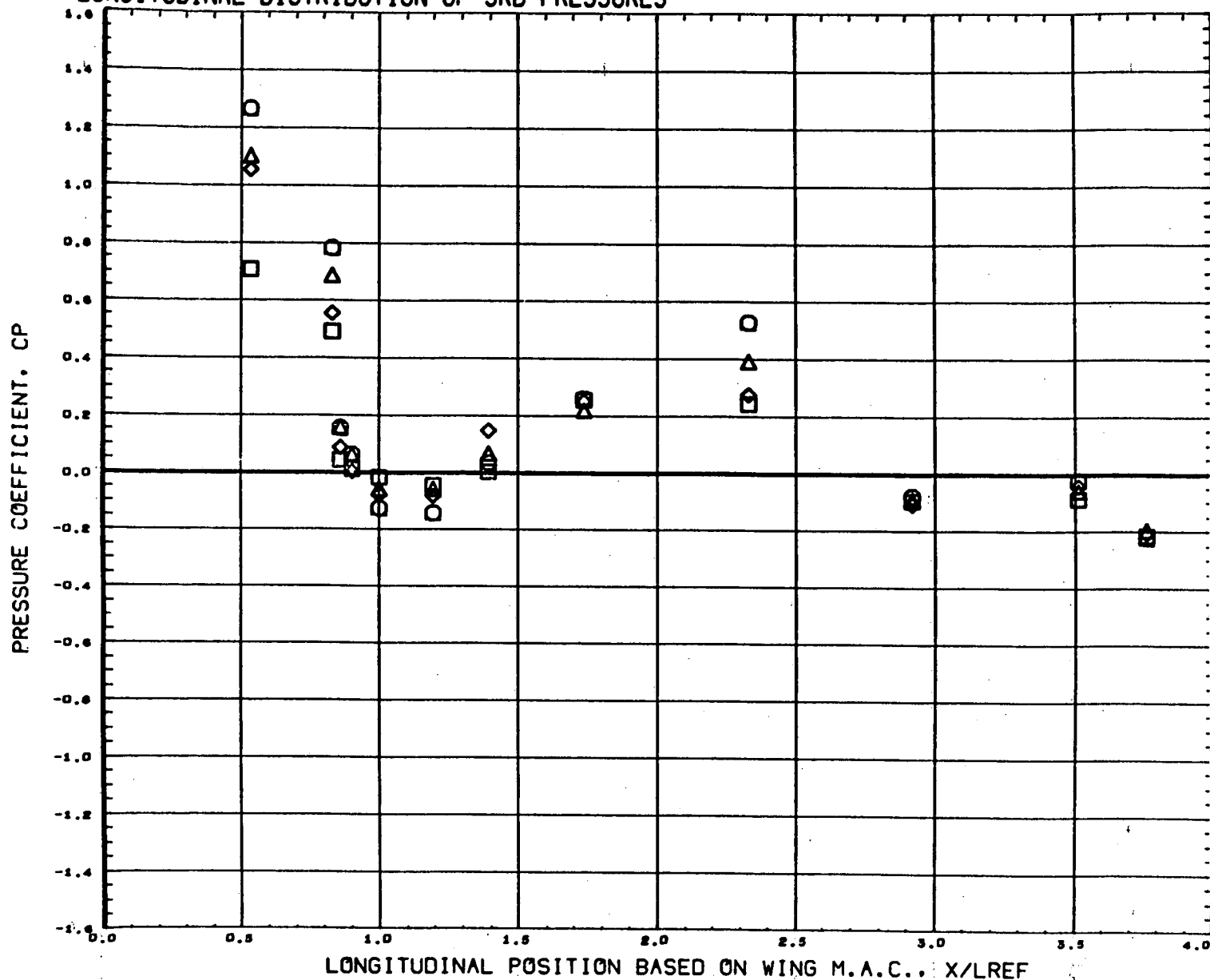


SYMBOL PHI ALPHA MACH
 ○ 240.000 - 10.000 1.960
 △ 255.000
 ◇ 270.000
 □ 285.000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

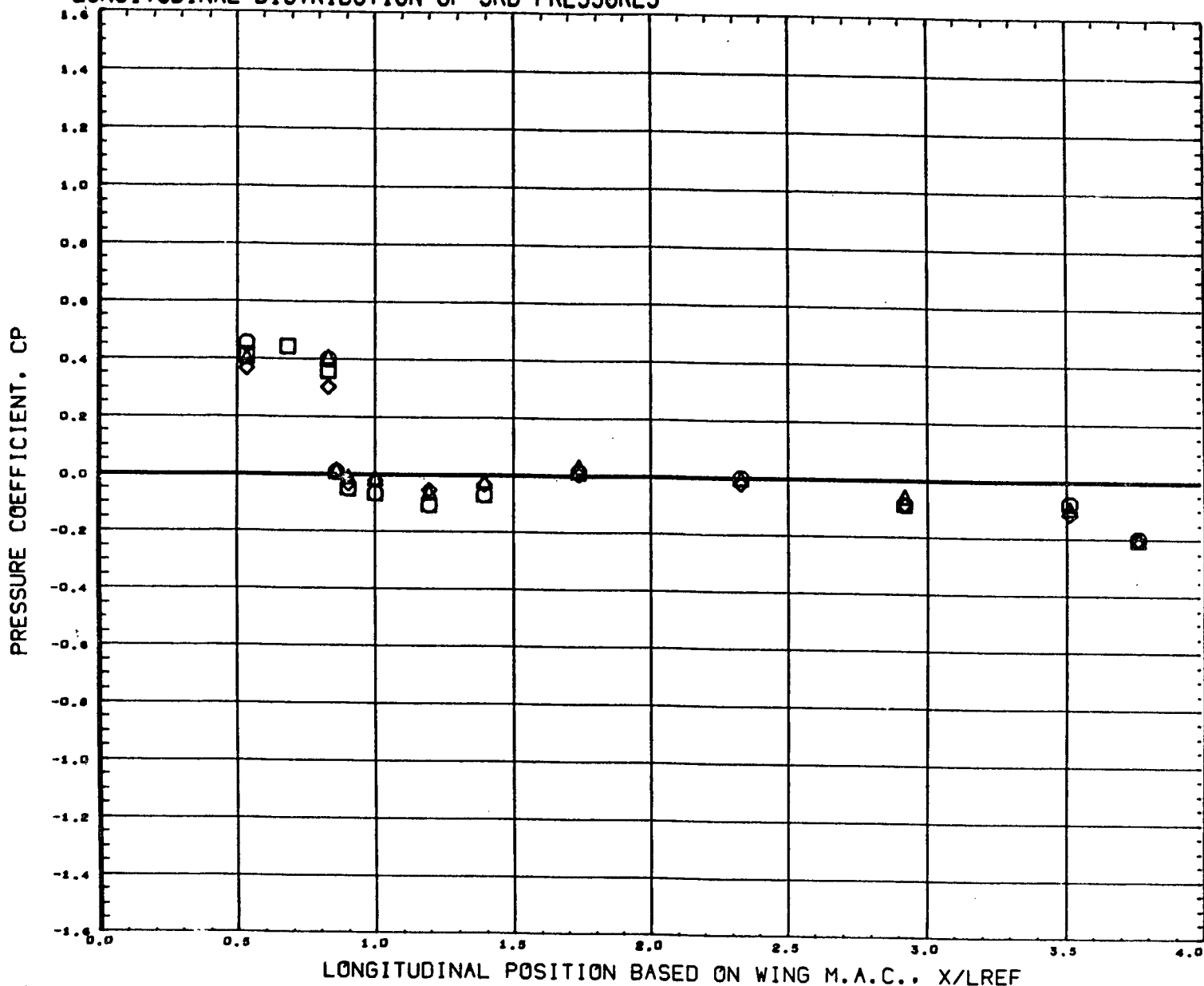
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300,000	- 10,000	1.960	BETA	0.000 ORBINC = 1.500
△	315,000			SRBCAP	0.025
◇	330,000				
□	345,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

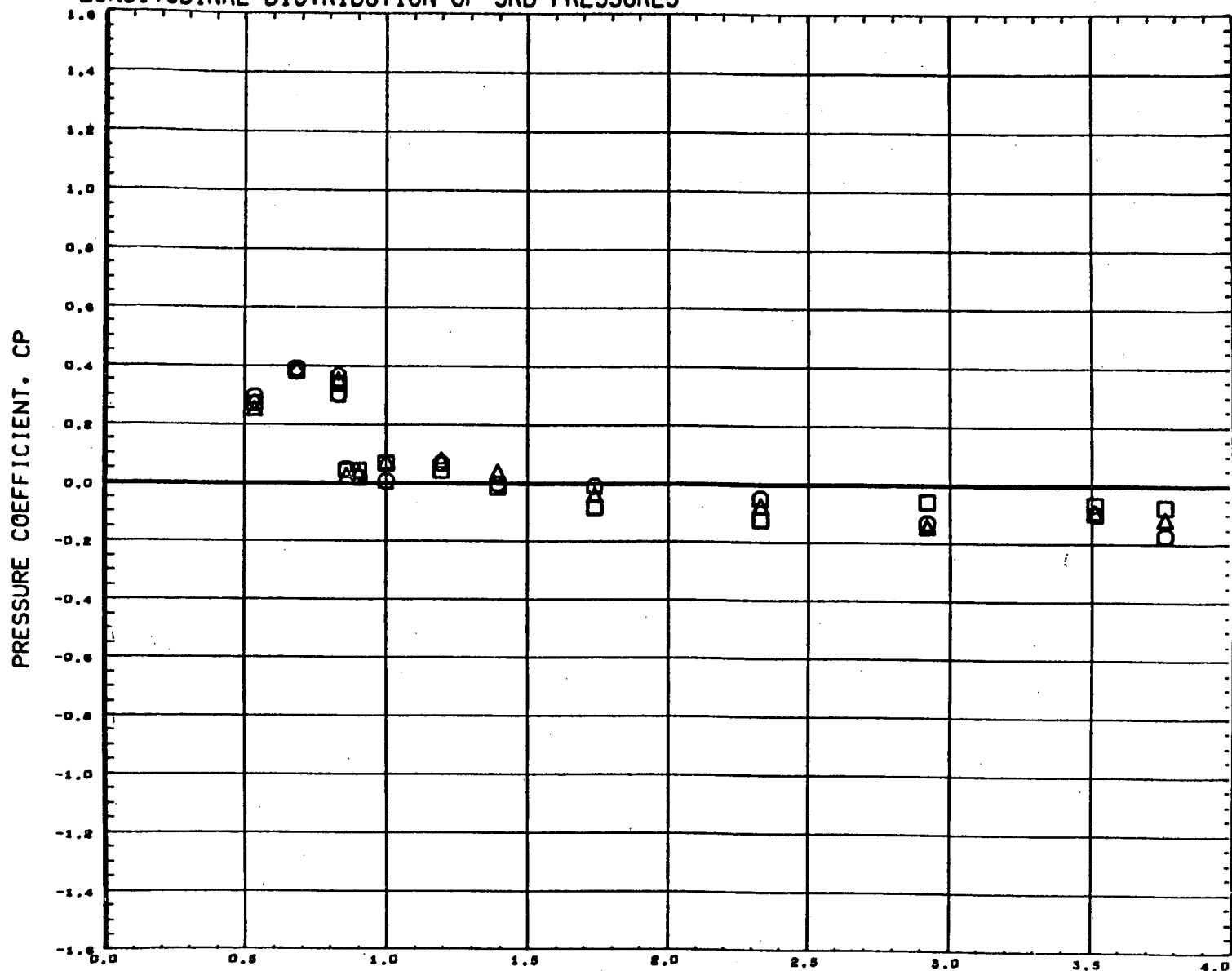
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	- 4.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL
 ○ 60.000
 △ 75.000
 □ 90.000
 ◇ 105.000

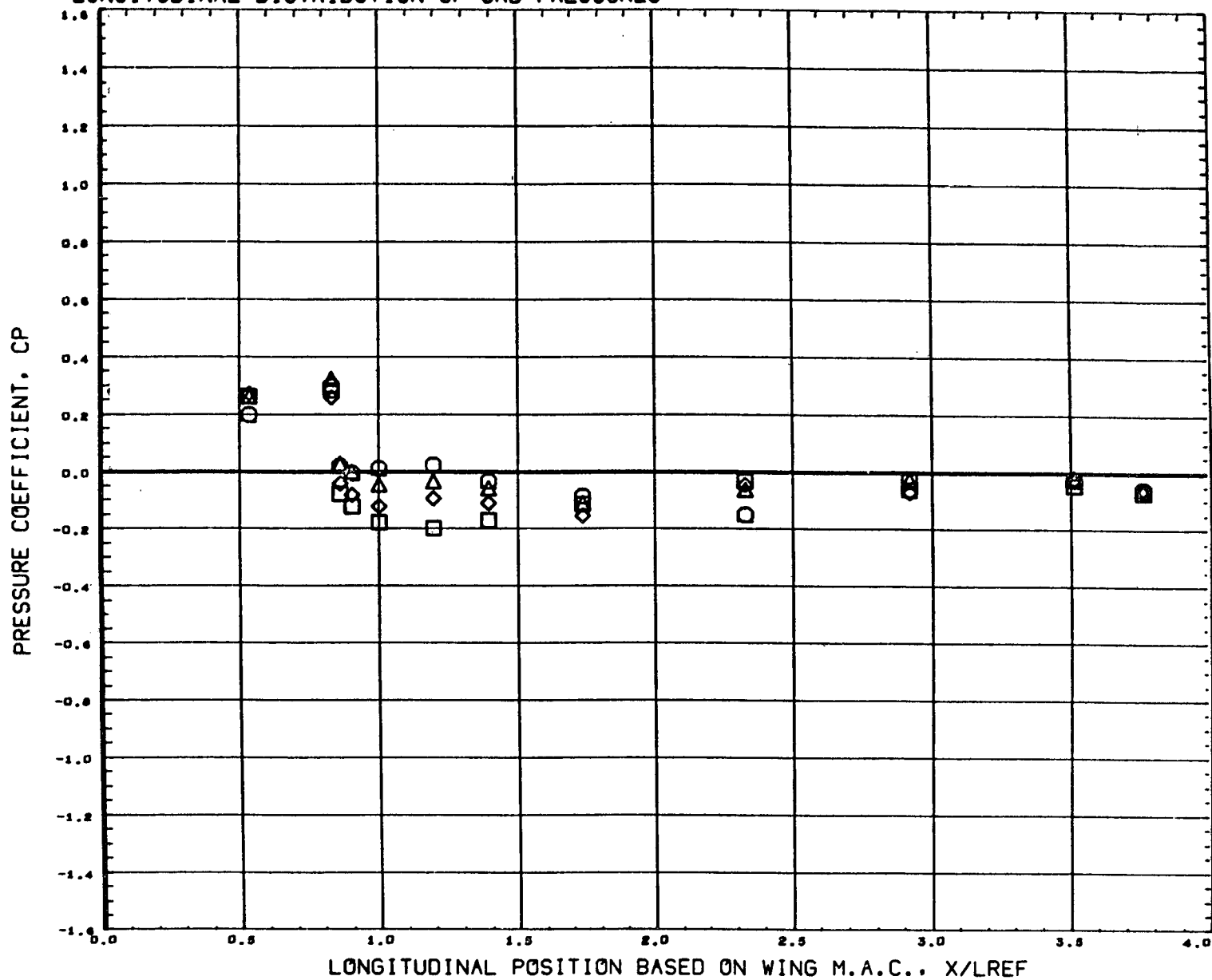
PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=0.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 443

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

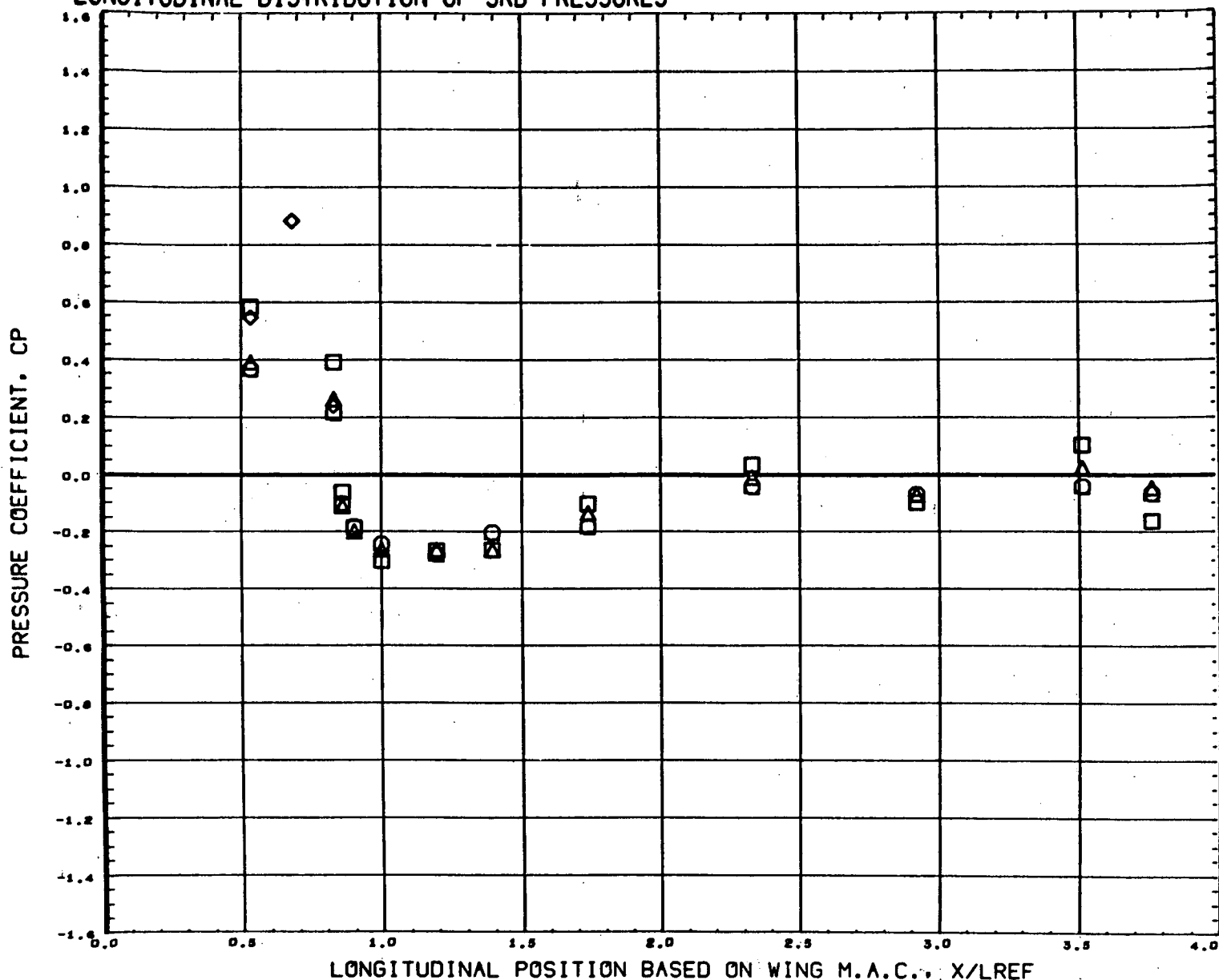


SYMBOL PHI ALPHA MACH
 ○ 120,000 - 4.000 1.960
 △ 135,000
 ◇ 150,000
 □ 165,000

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

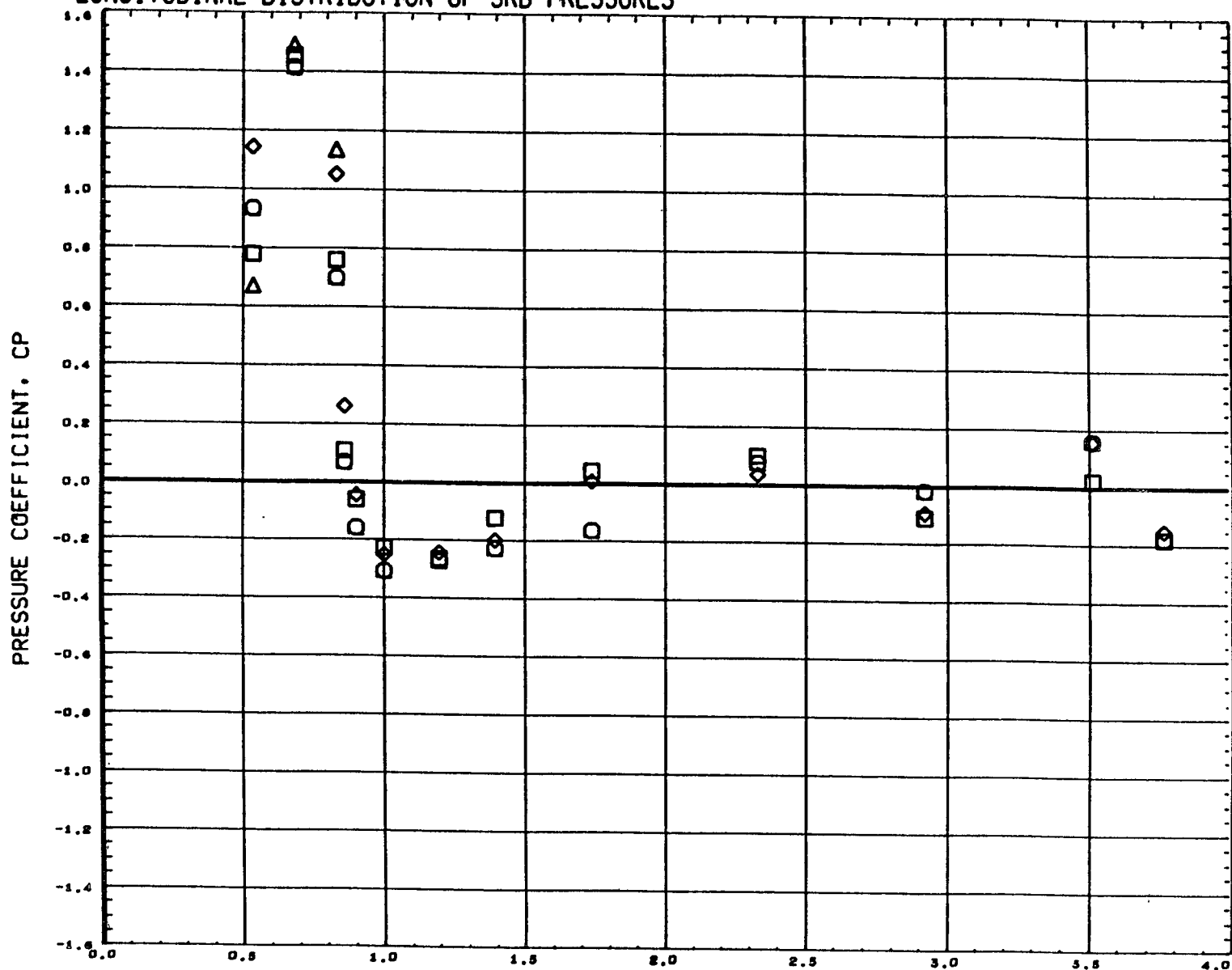
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	180,000	4.000	1.960	BETA	0.000
△	195,000			SRBGAP	0.025
◇	210,000				
□	225,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

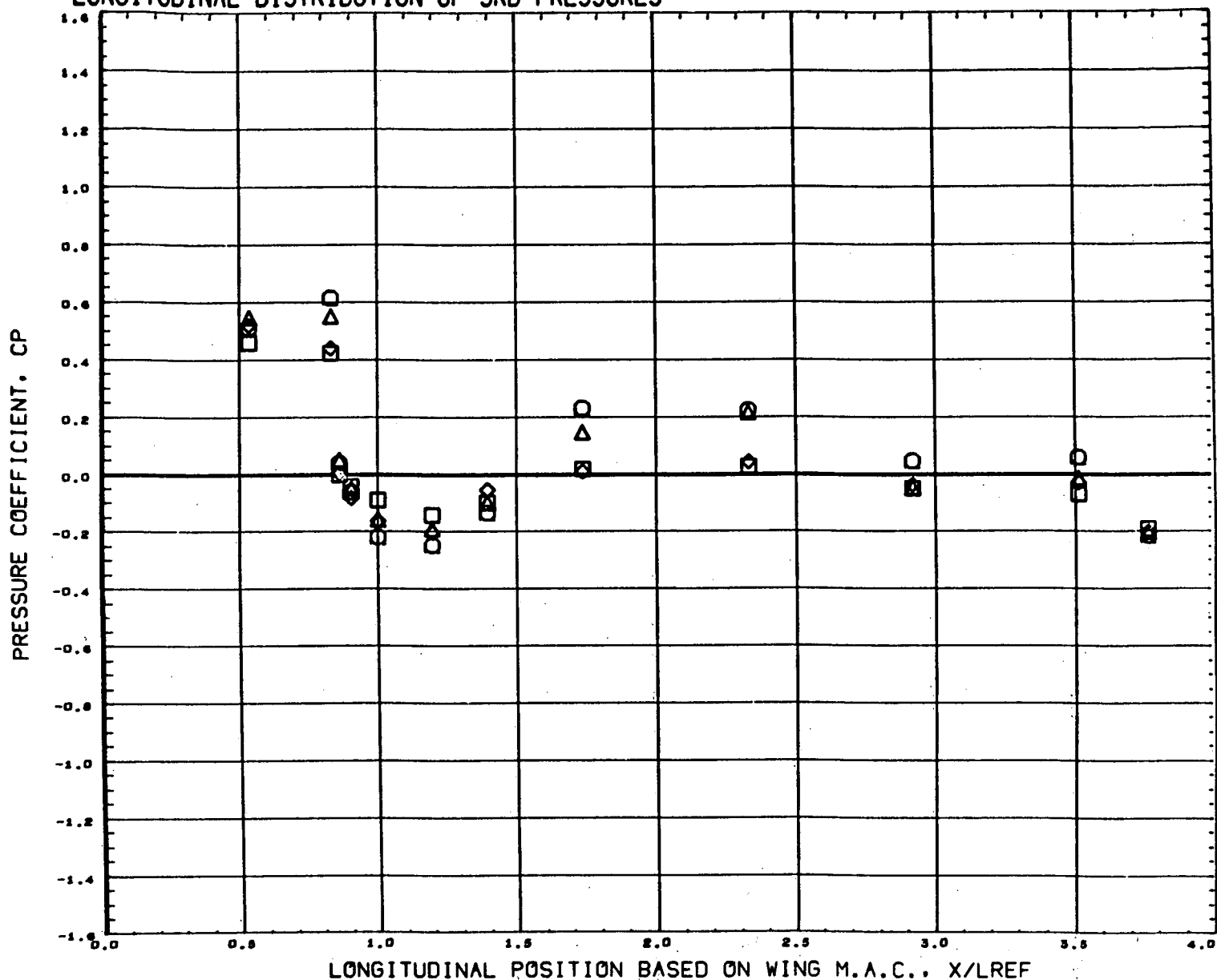


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC
○	240,000	4.000	1.960	0.000	0.025		1.500
△	255,000						
◇	270,000						
□	285,000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

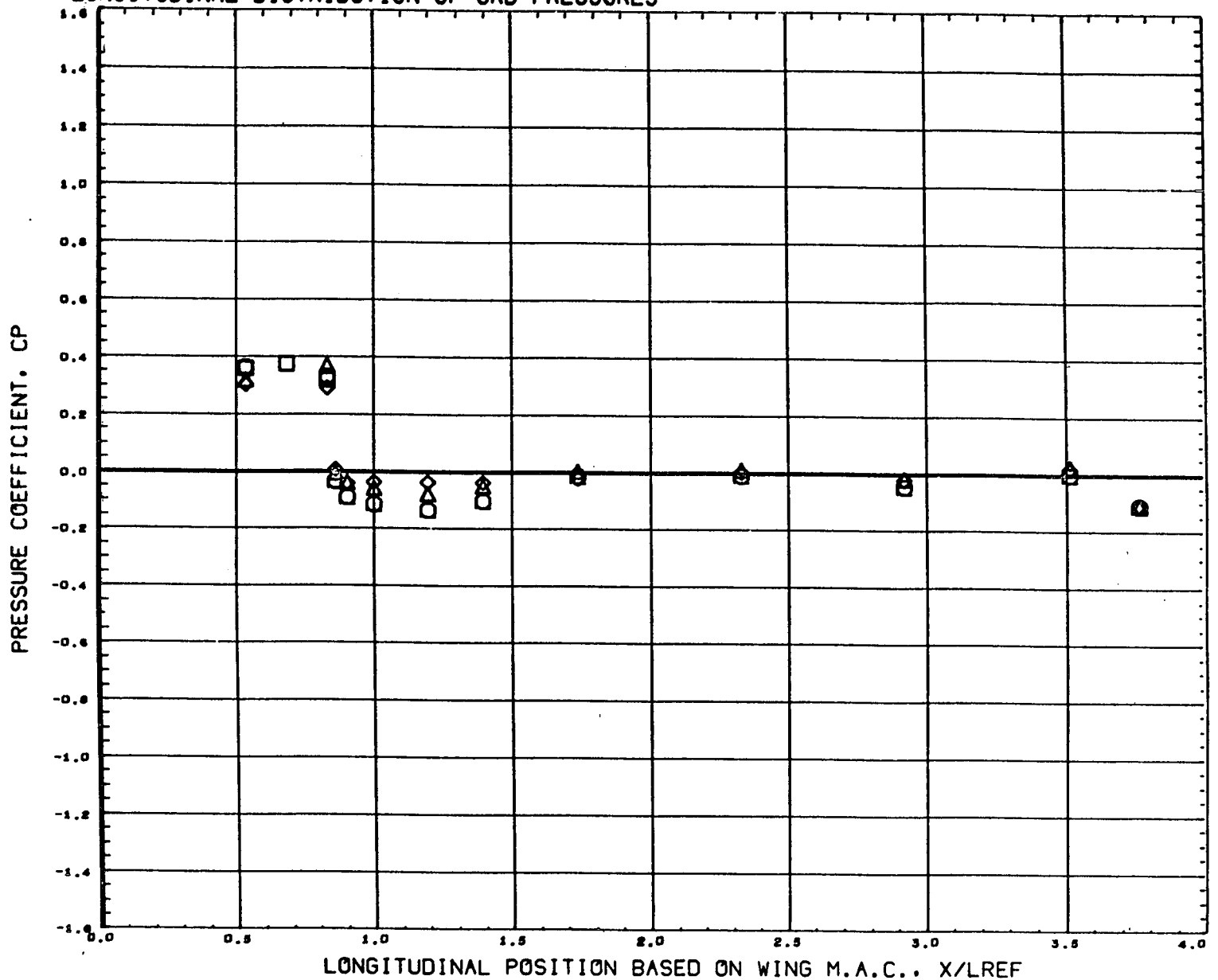
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300,000	4.000	1.960	BETA	0.000	ORBINC - 1.500
△	315,000			SRBGAP	0.025	
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

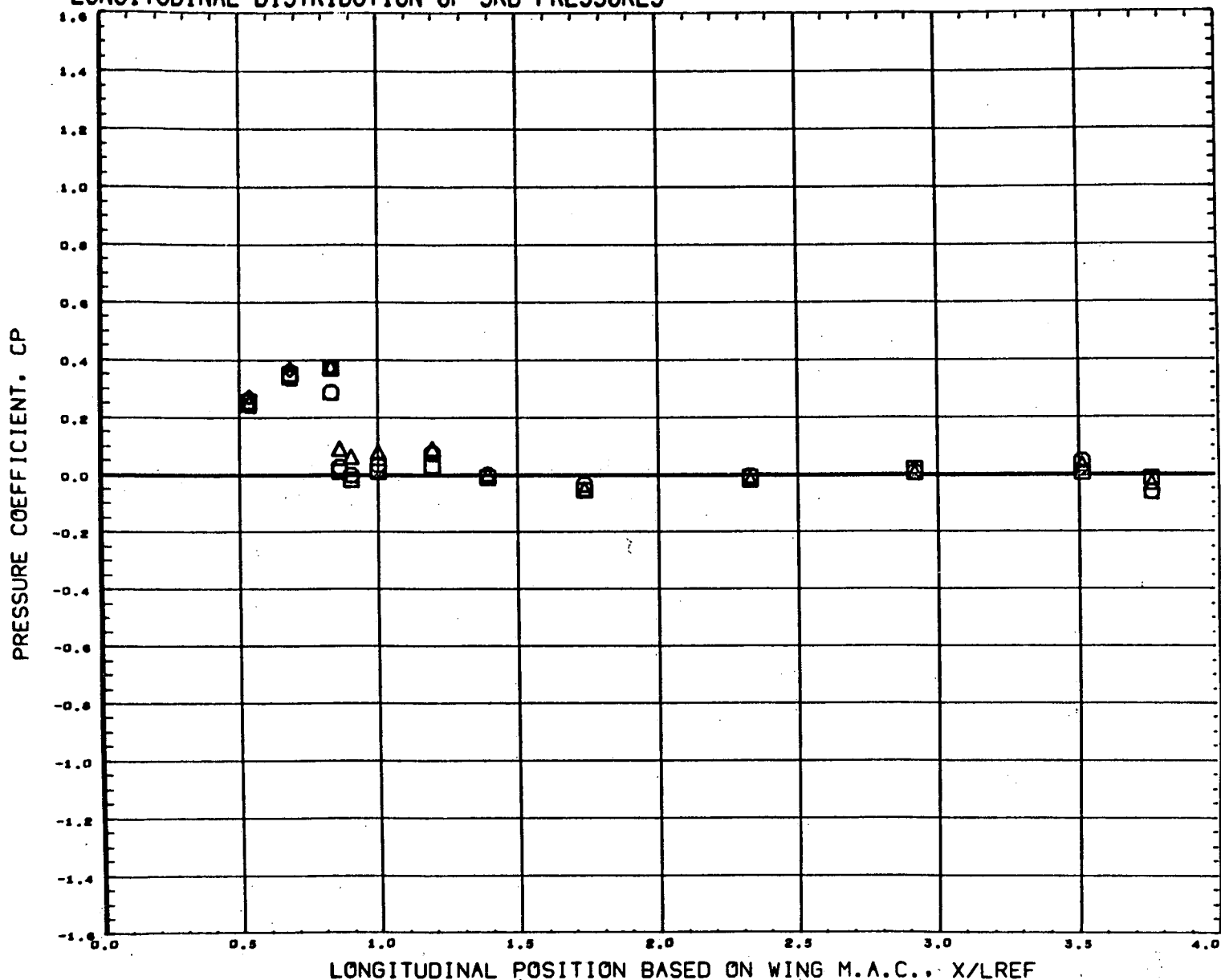
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60,000	0.000	1.960
△	75,000		
◇	90,000		
□	105,000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

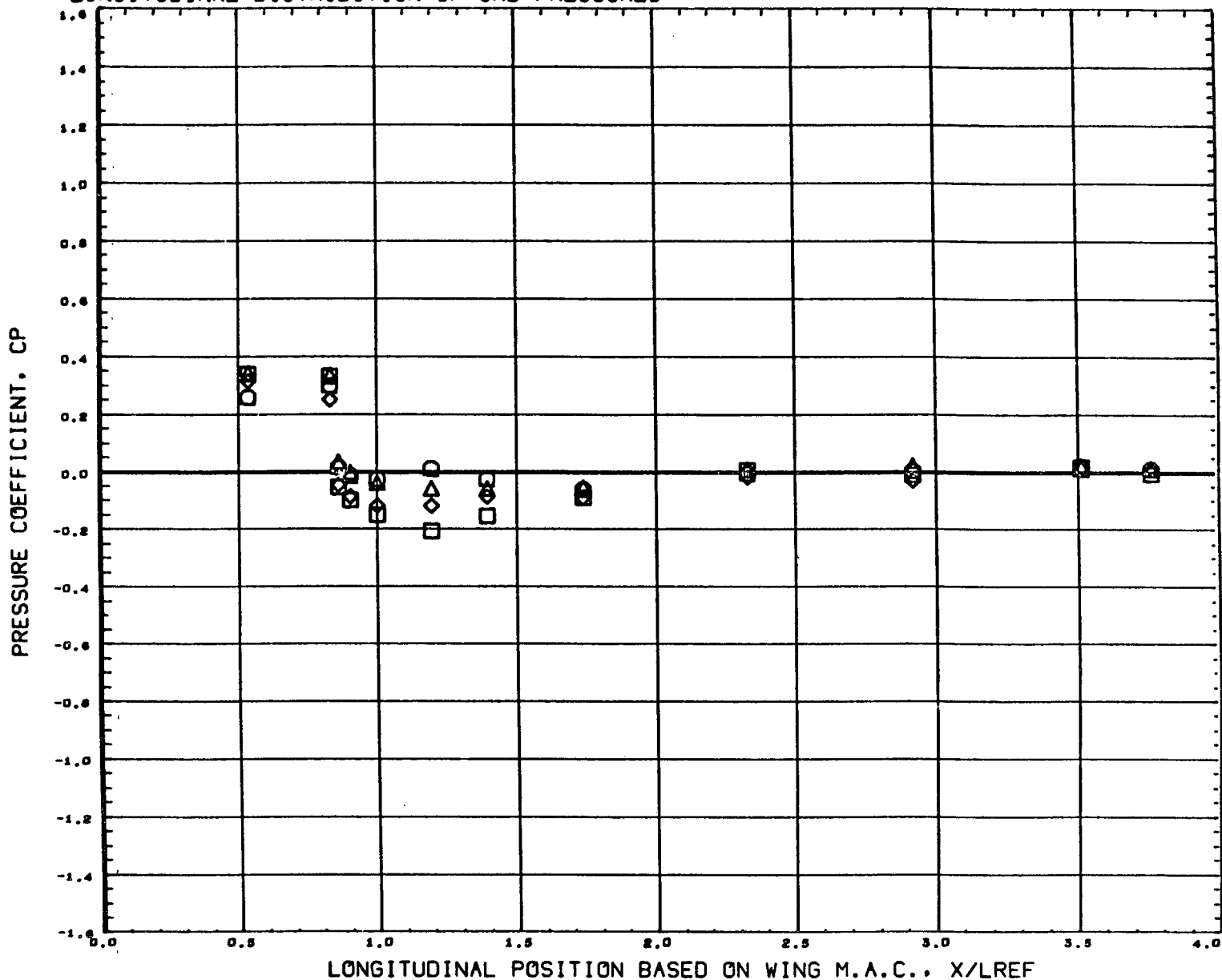
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 449

06

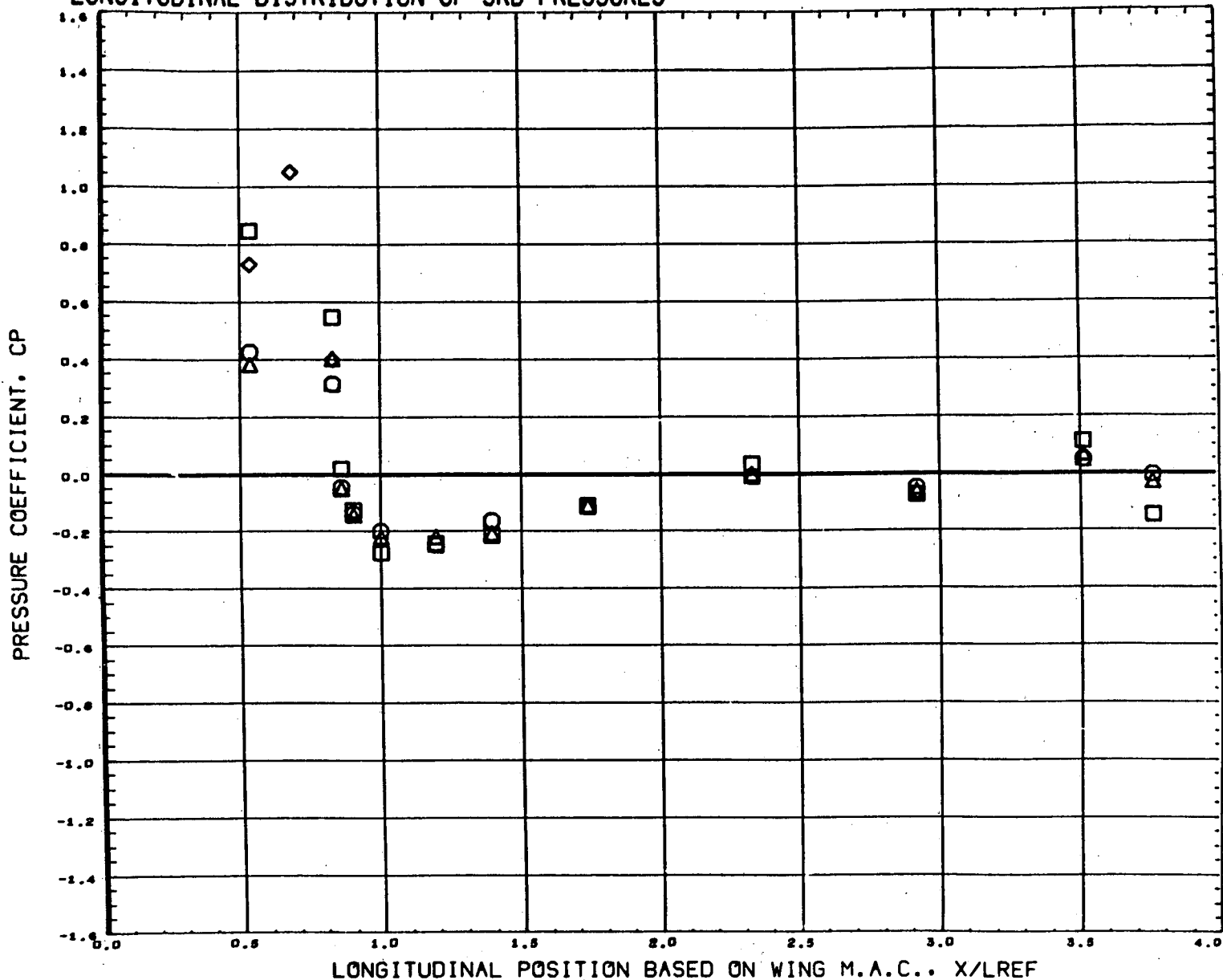
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	120.000	0.000	1.960	BETA	0.000
△	135.000			SRBGAP	0.025
◇	150.000				
□	165.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

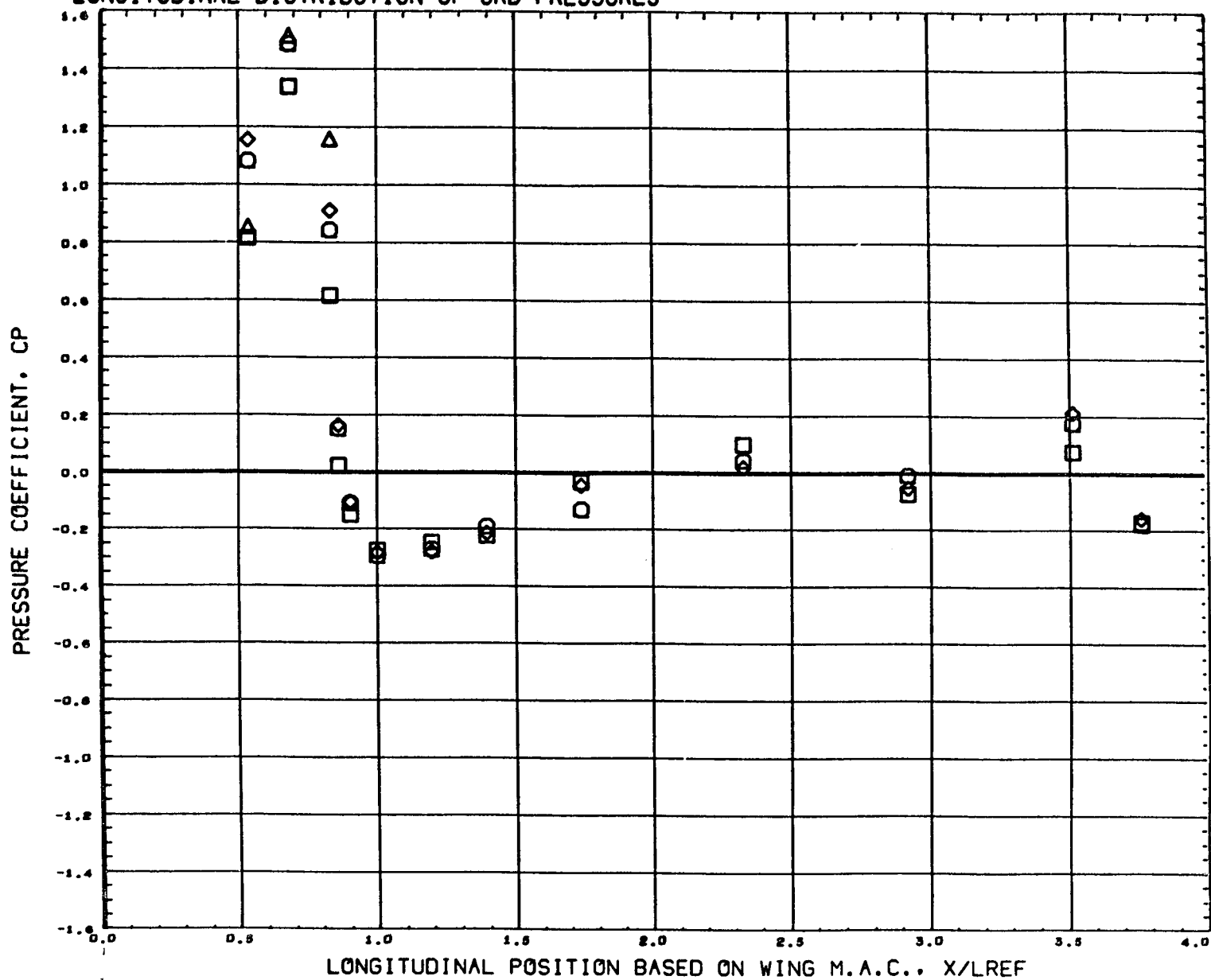


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	100,000	0.000	1.960	BETA	0.000	ORBINC - 1.500
△	195,000			SRBGAP	0.025	
◇	210,000					
□	225,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

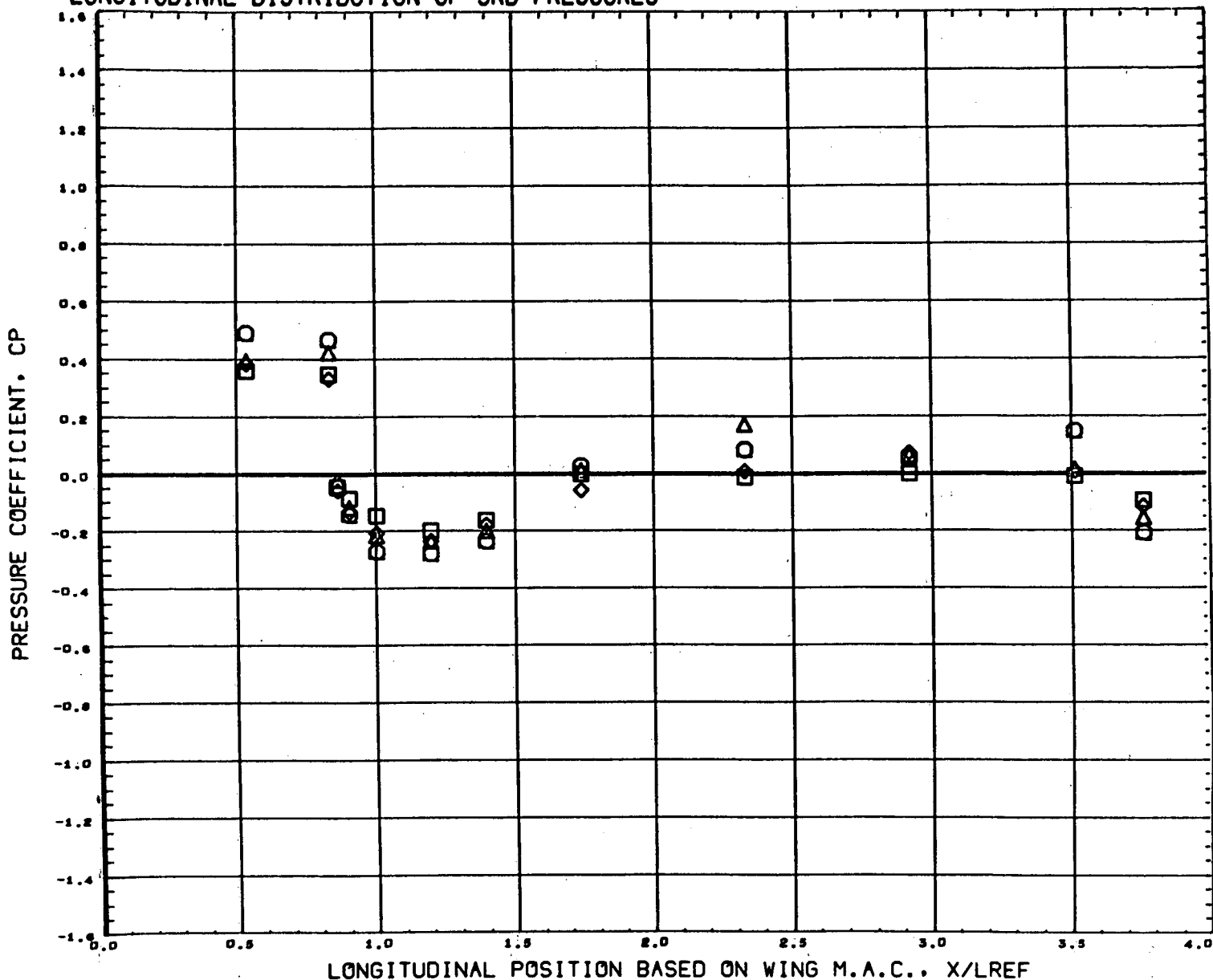
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	0.000	1.960	BETA	0.000	ORBINC - 1.500
△	255.000			SRBGAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

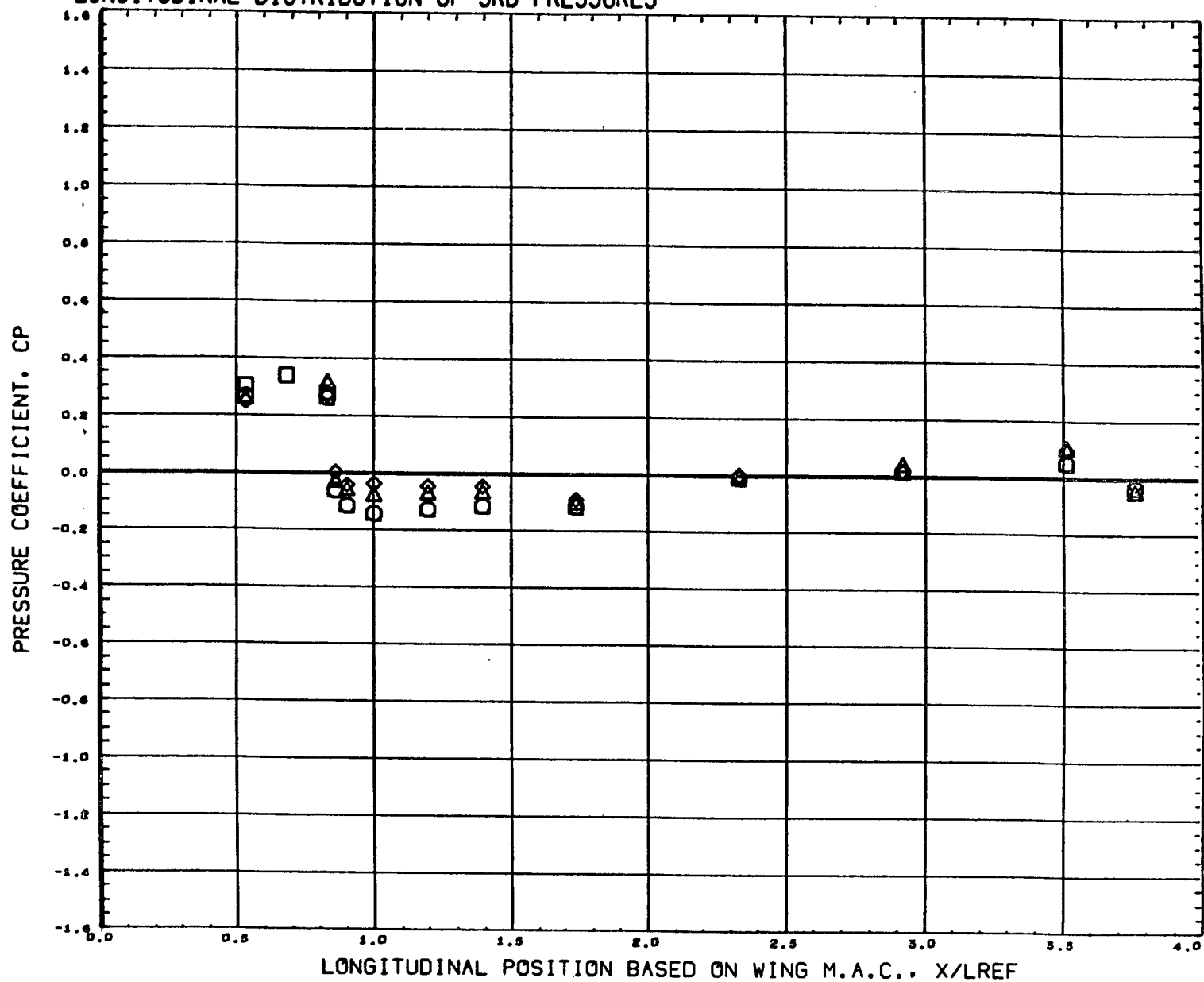


SYMBOL	PHI	ALPHA	MACH
○	300,000	0,000	1.960
△	315,000		
◇	330,000		
□	345,000		

PARAMETRIC VALUES	
BETA	0,000 ORBINC - 1,500
SRBCAP	0,025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

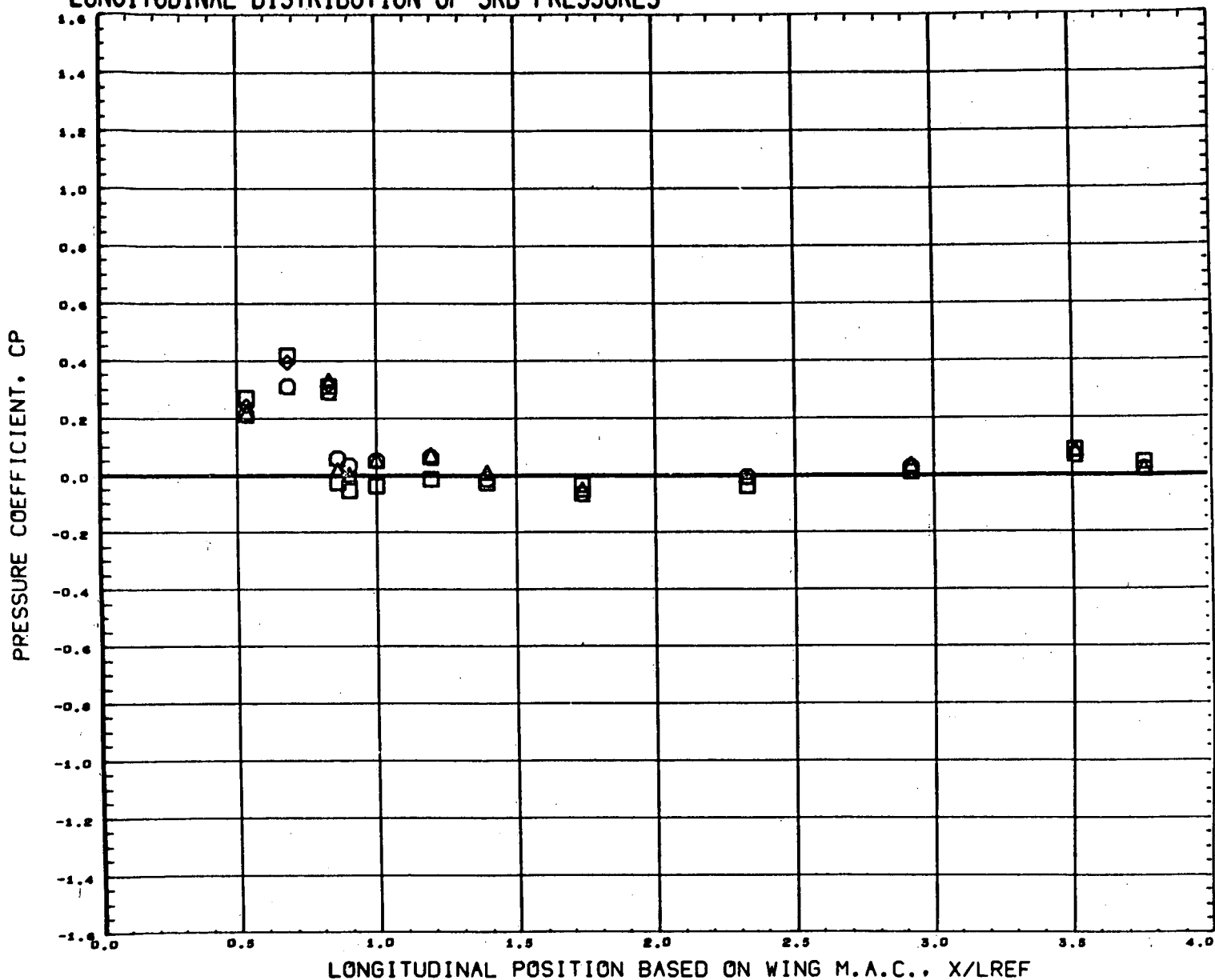
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	4.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH
○	60,000	4,000	1.960
△	75,000		
◇	90,000		
□	105,000		

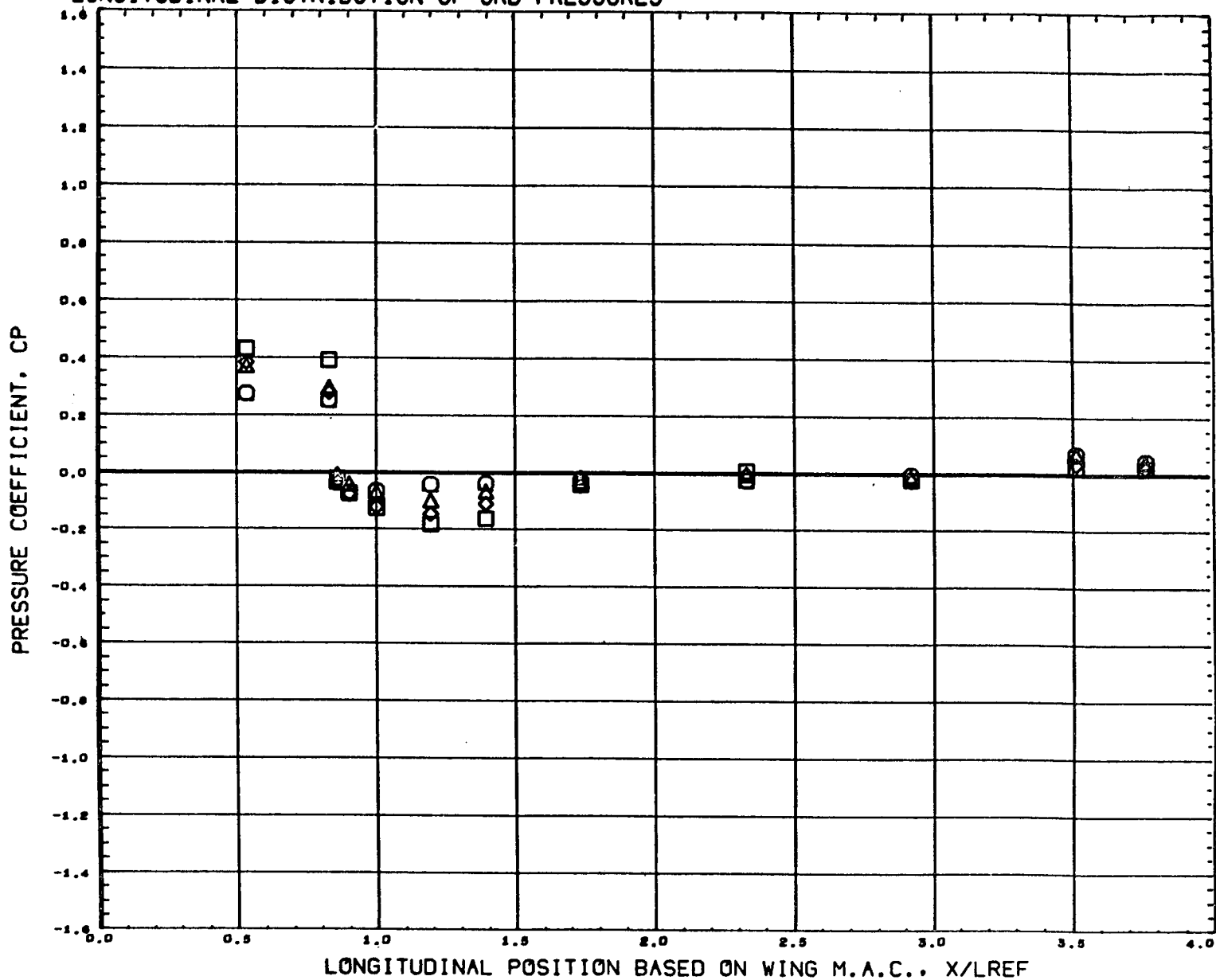
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 455

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

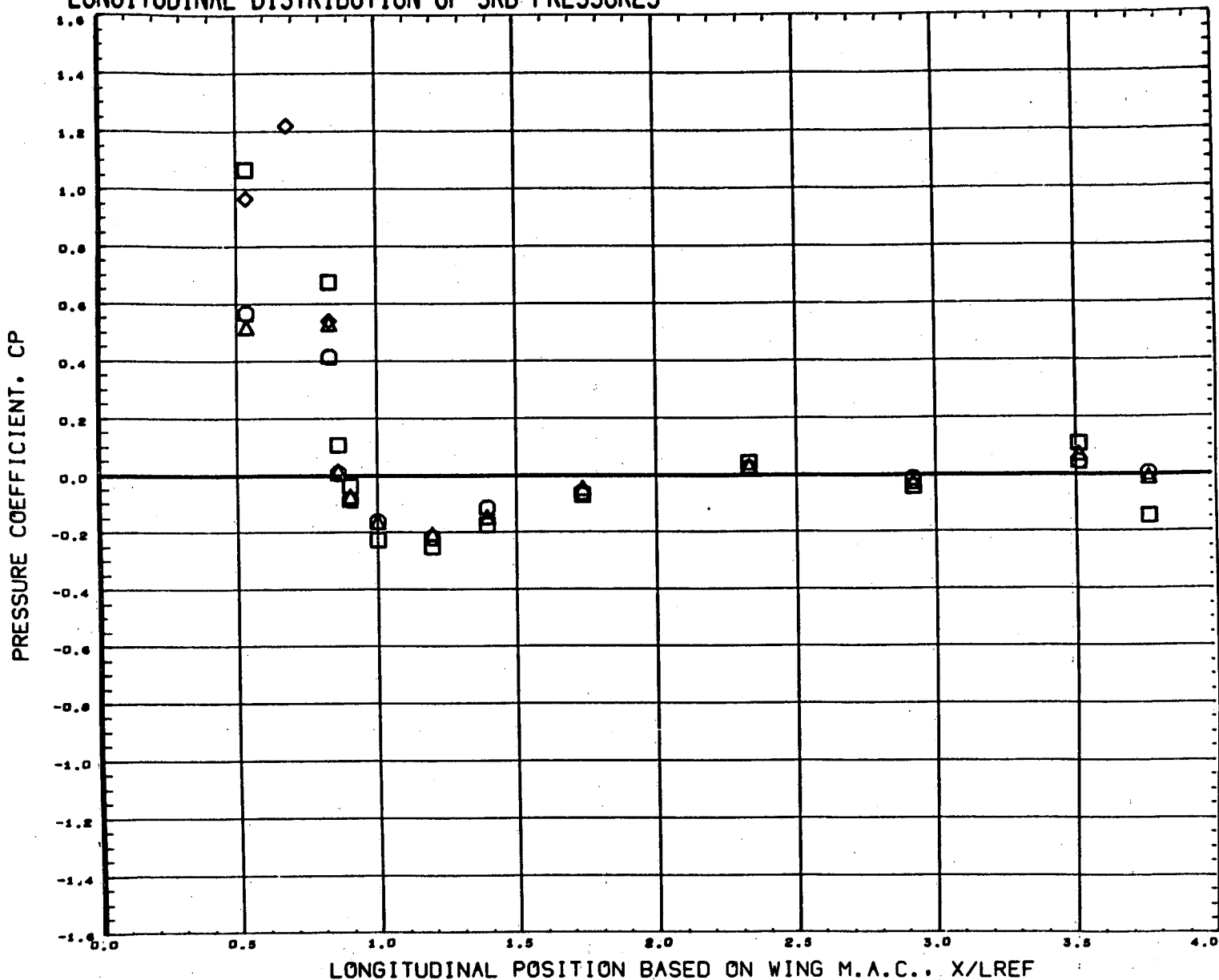


SYMBOL	PHI	ALPHA	MACH
○	120,000	4.000	1.960
△	135,000		
◇	150,000		
□	165,000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



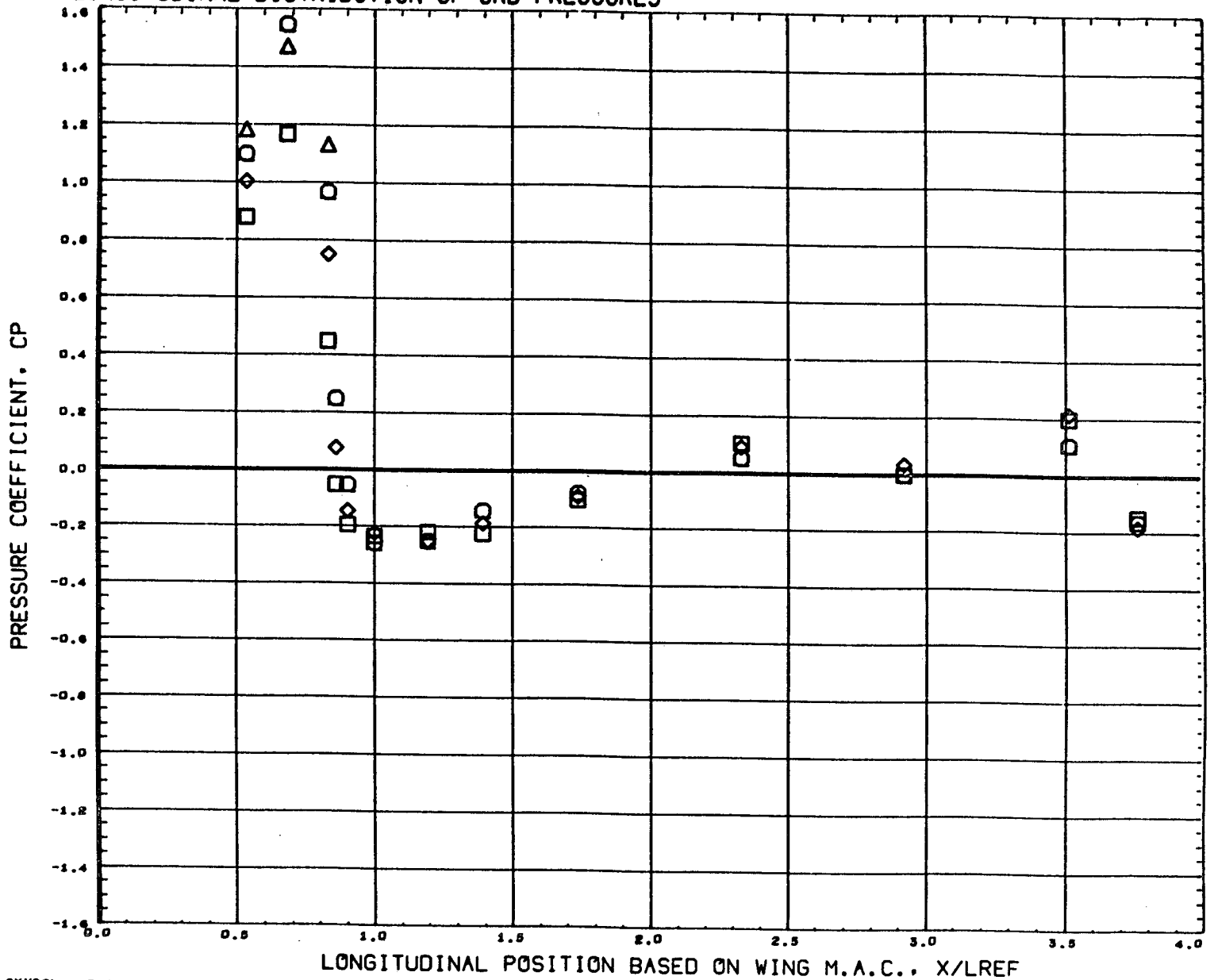
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
□	160.000	4.000	1.960
△	195.000		
◇	210.000		
○	225.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

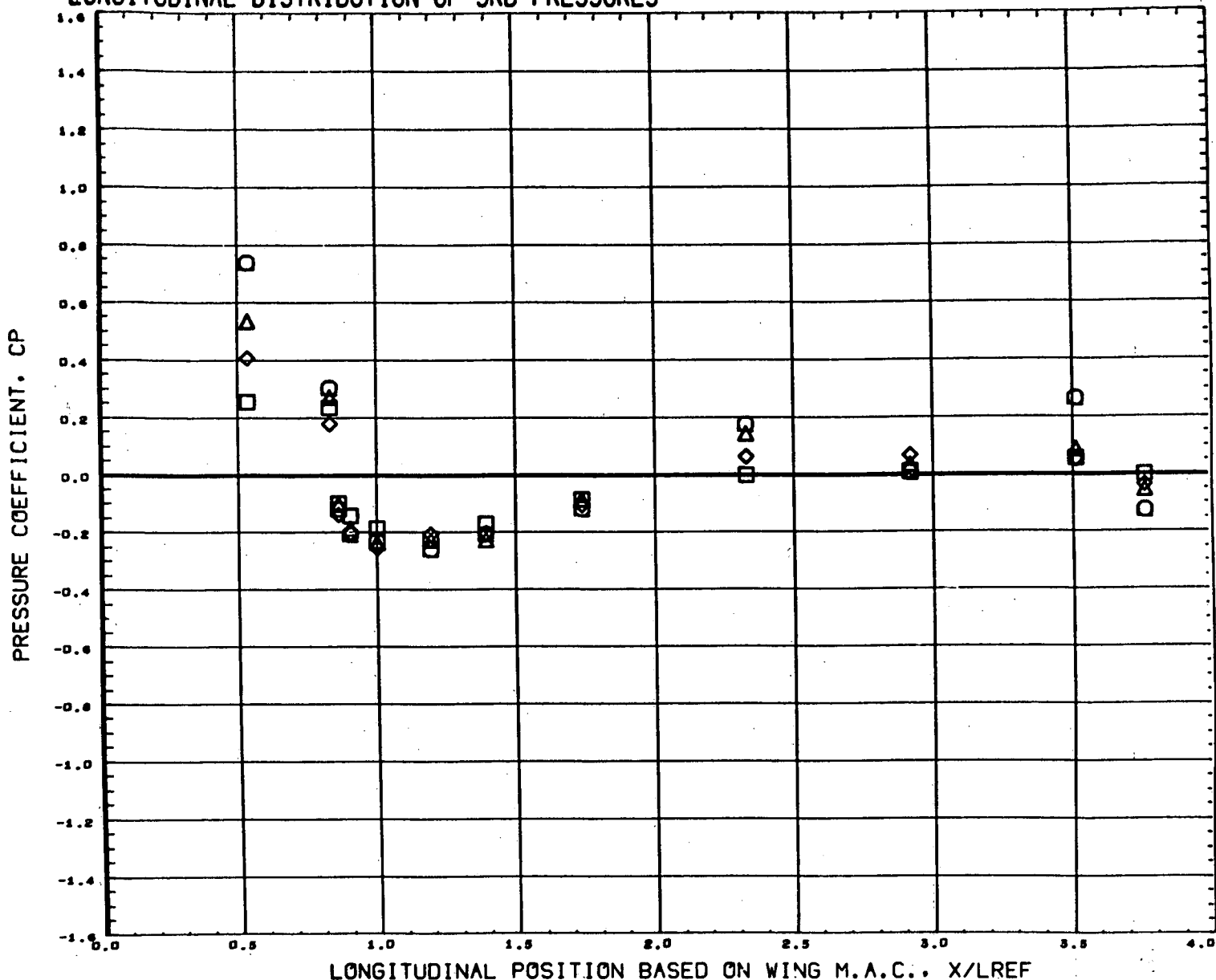
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBCAP	PARAMETRIC VALUES
○	240.000	4.000	1.960	0.000	0.025	ORBNIC - 1.500
△	255.000					
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

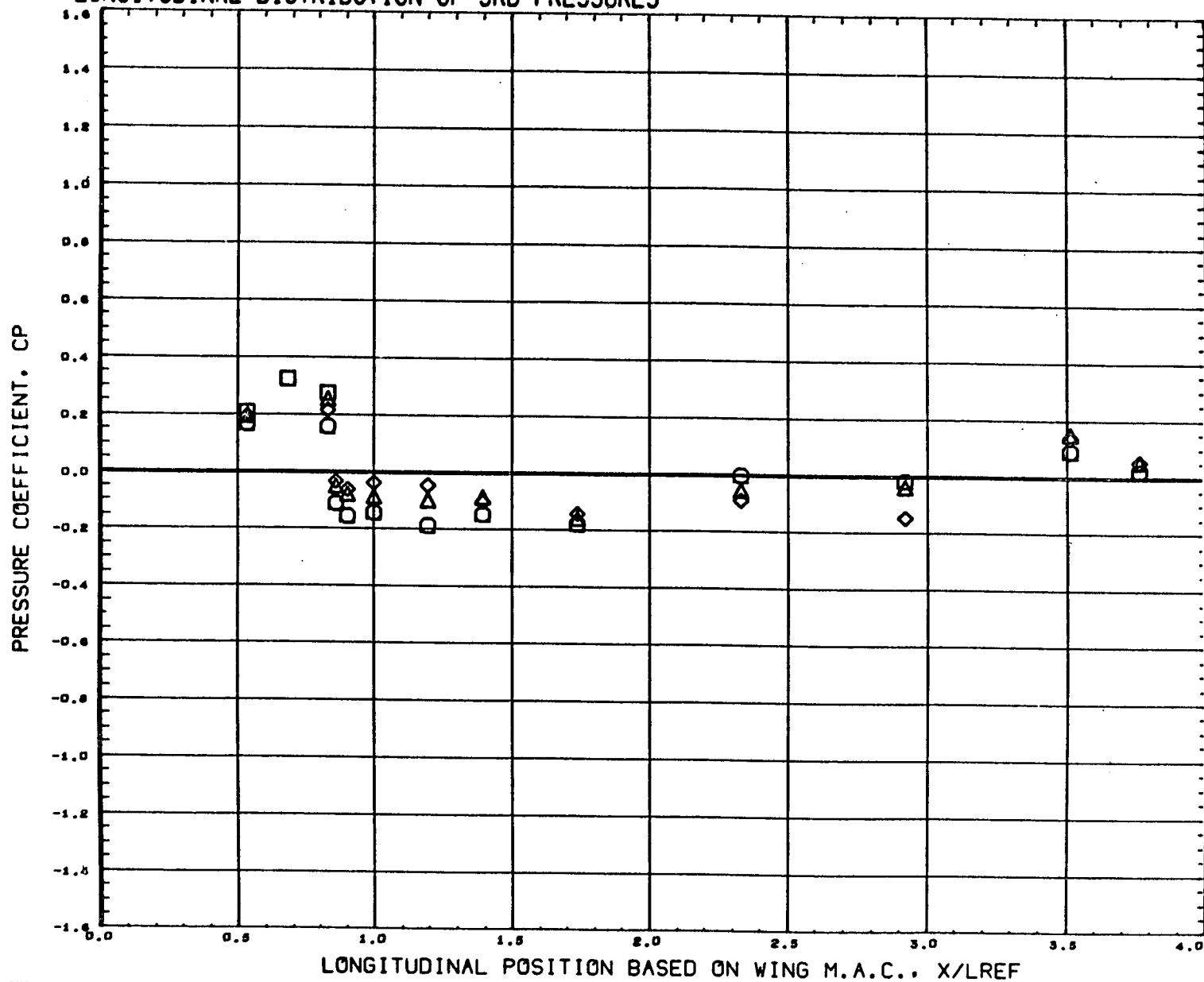
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300.000	4.000	1.960	BETA	0.000	ORBINC - 1.500
△	315.000			SRBGAP	0.025	
◇	330.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

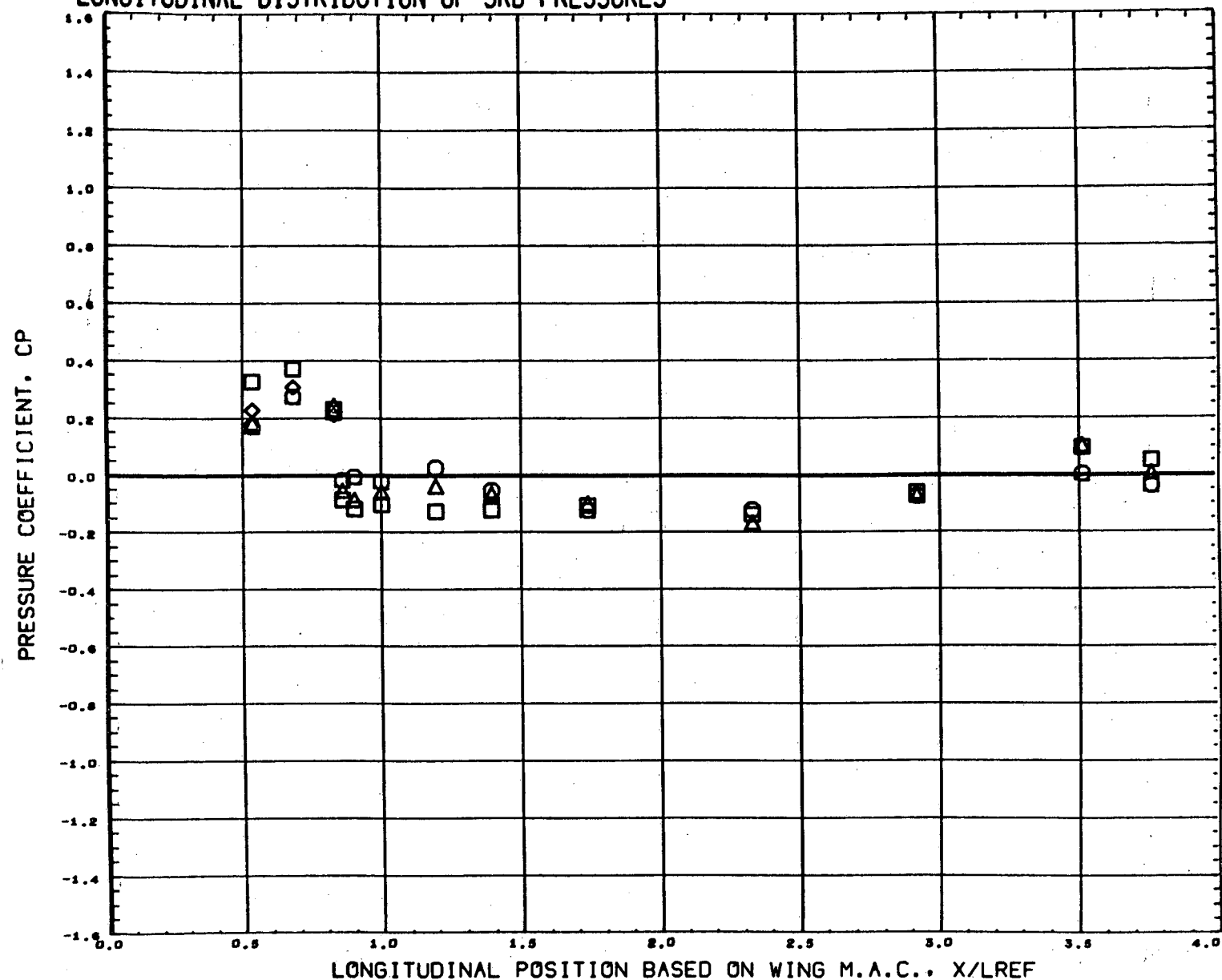
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	1.960	BETA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 460

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

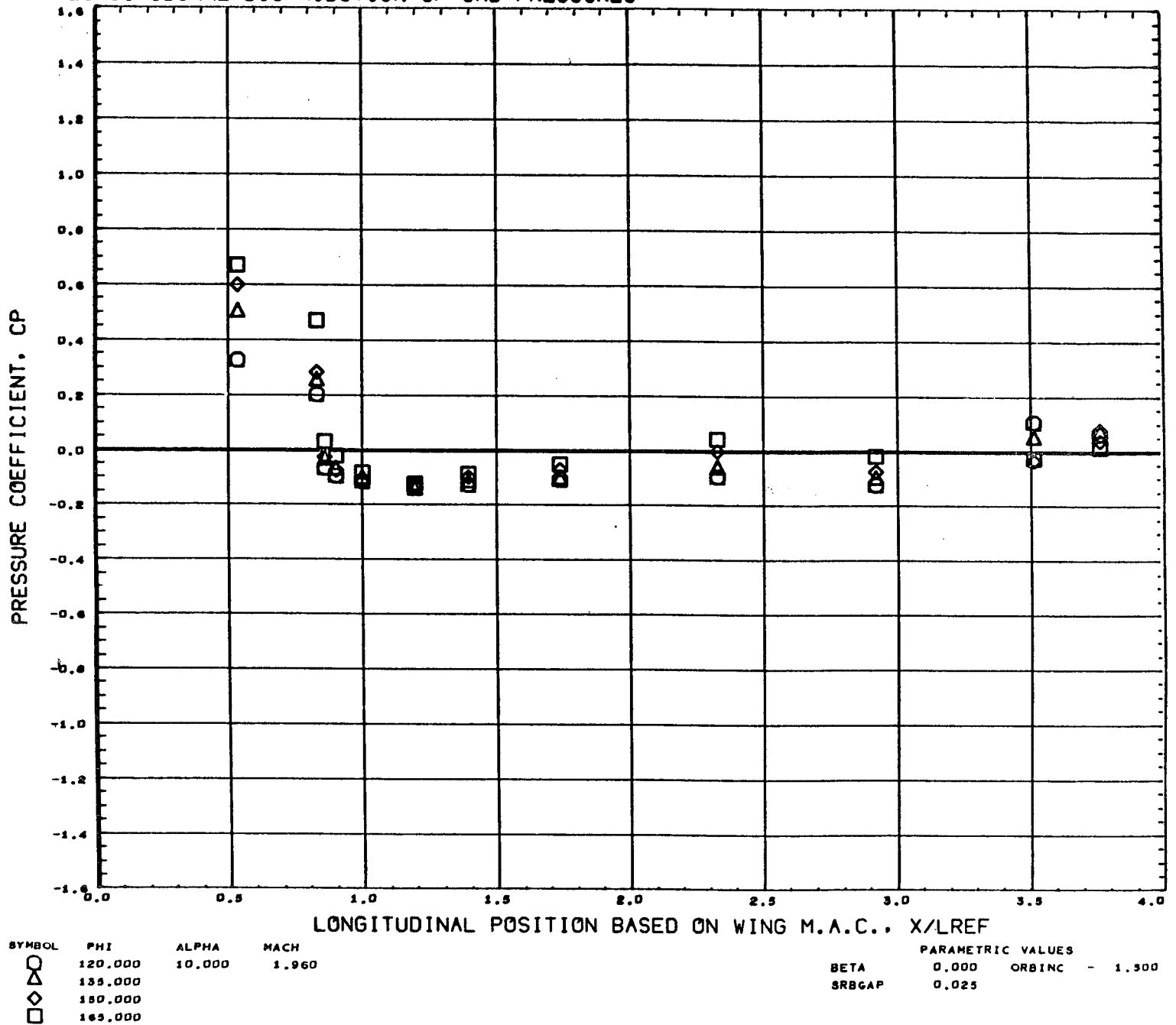


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	60.000	10.000	1.960	0.000	ORBINC	- 1.500
△	75.000			SRBGAP	0.025	
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

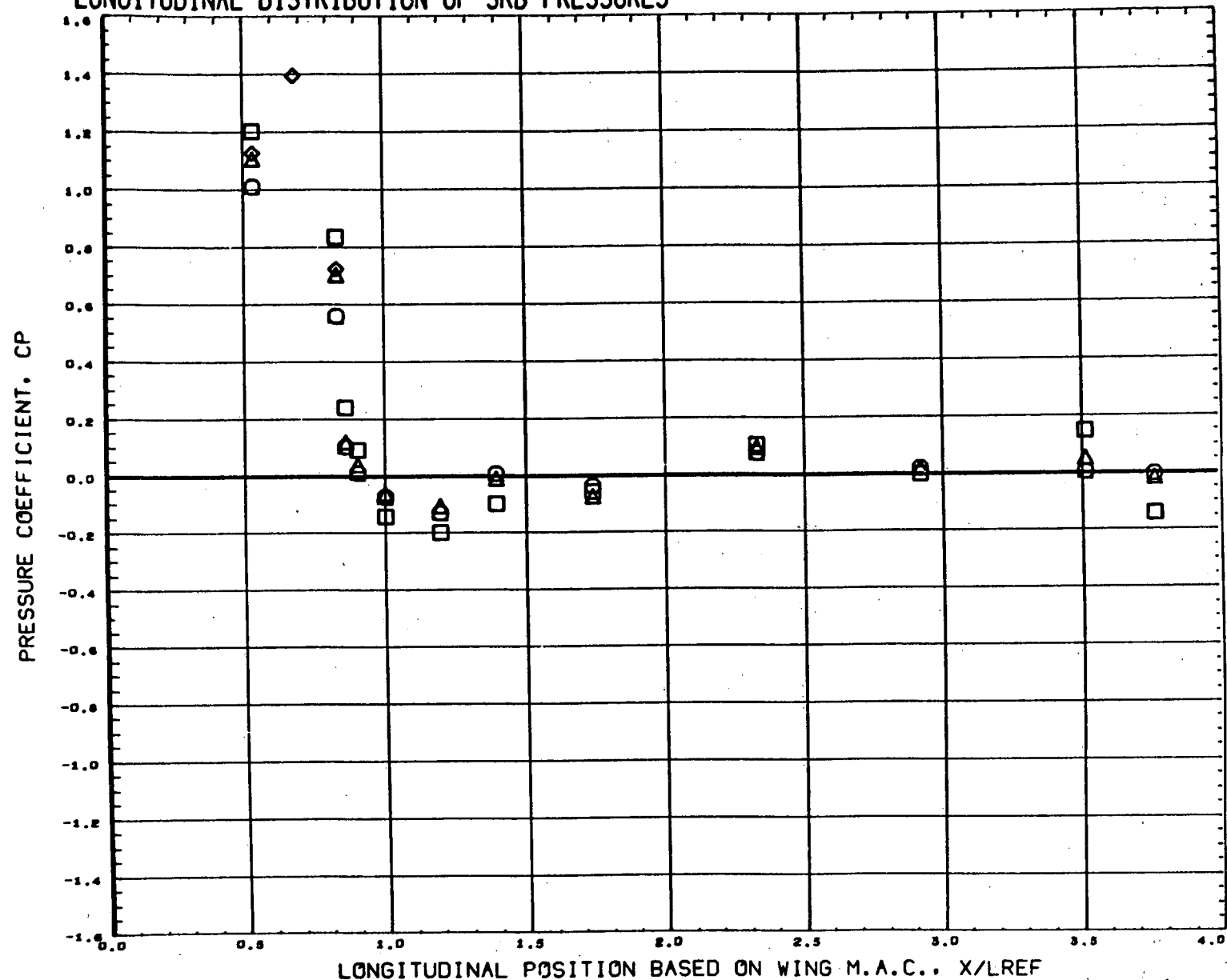
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

3

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

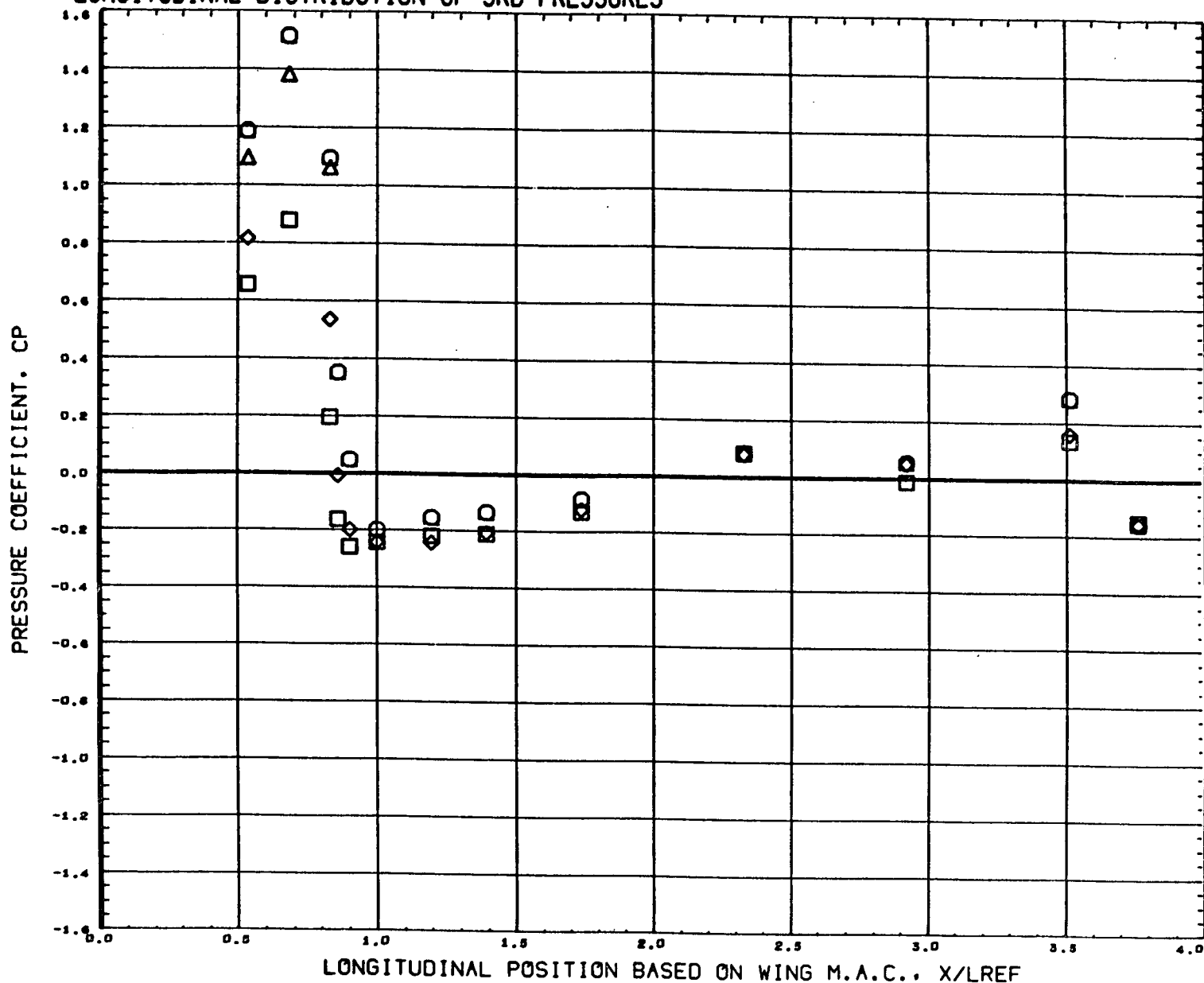


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	
○	180,000	10.000	1.960	0.000	ORBINC	1.500
△	195,000			0.025		
◇	210,000					
□	225,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



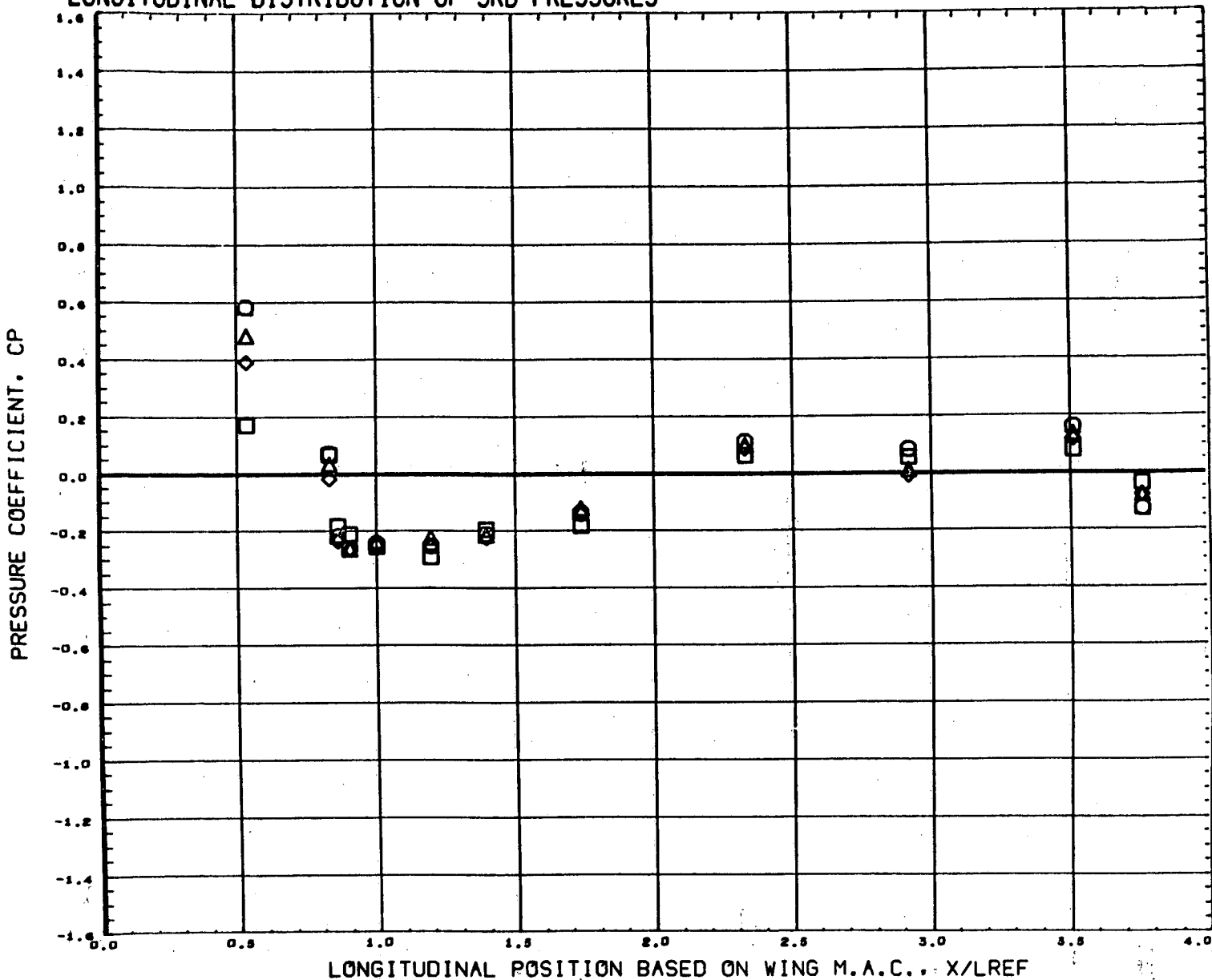
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	240.000	10.000	1.960
△	255.000		
◇	270.000		
□	285.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

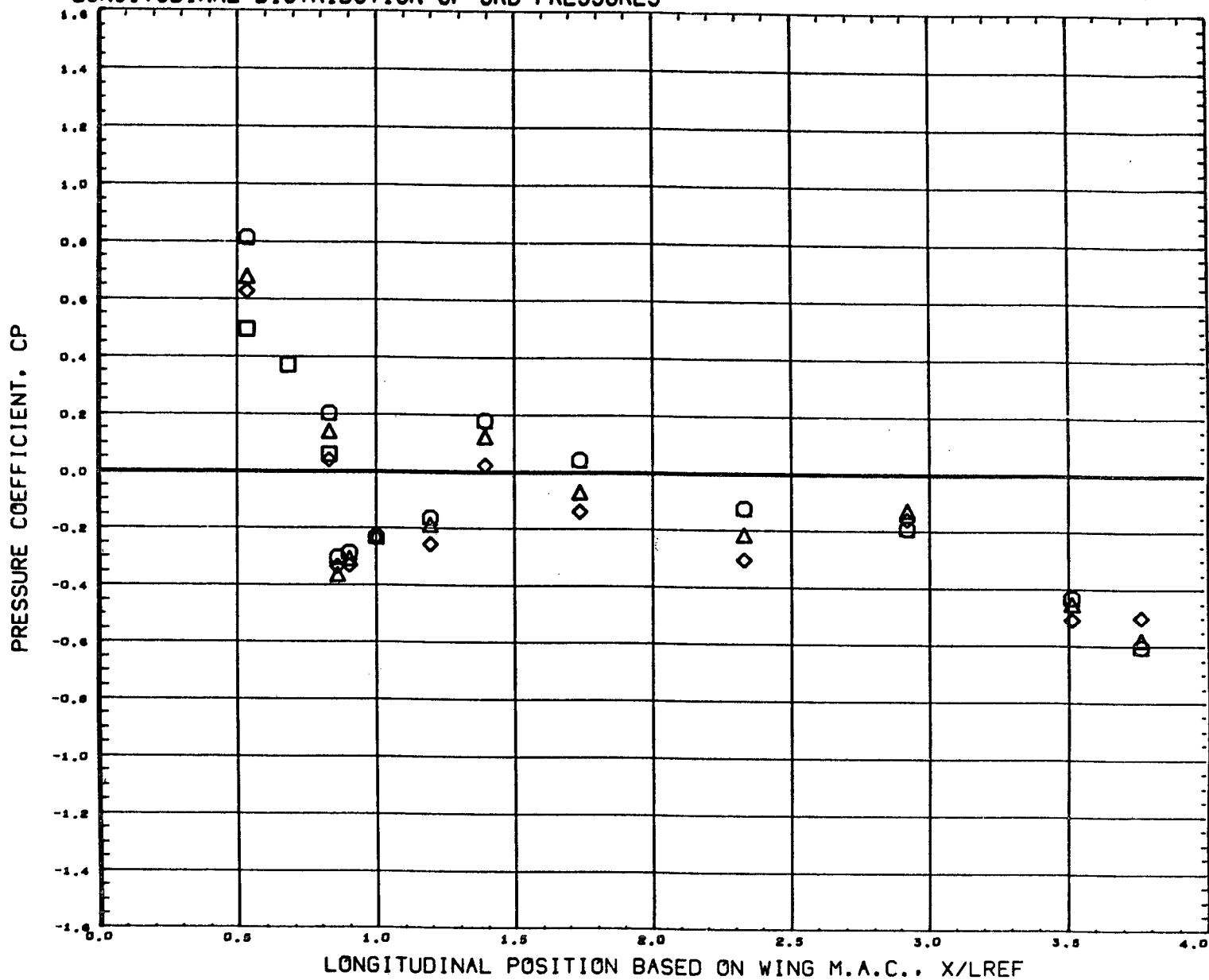
SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	300,000	10,000	1.960	BETA	0.000
△	315,000			SRBGAP	0.025
◇	330,000				
□	345,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

PAGE 465

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

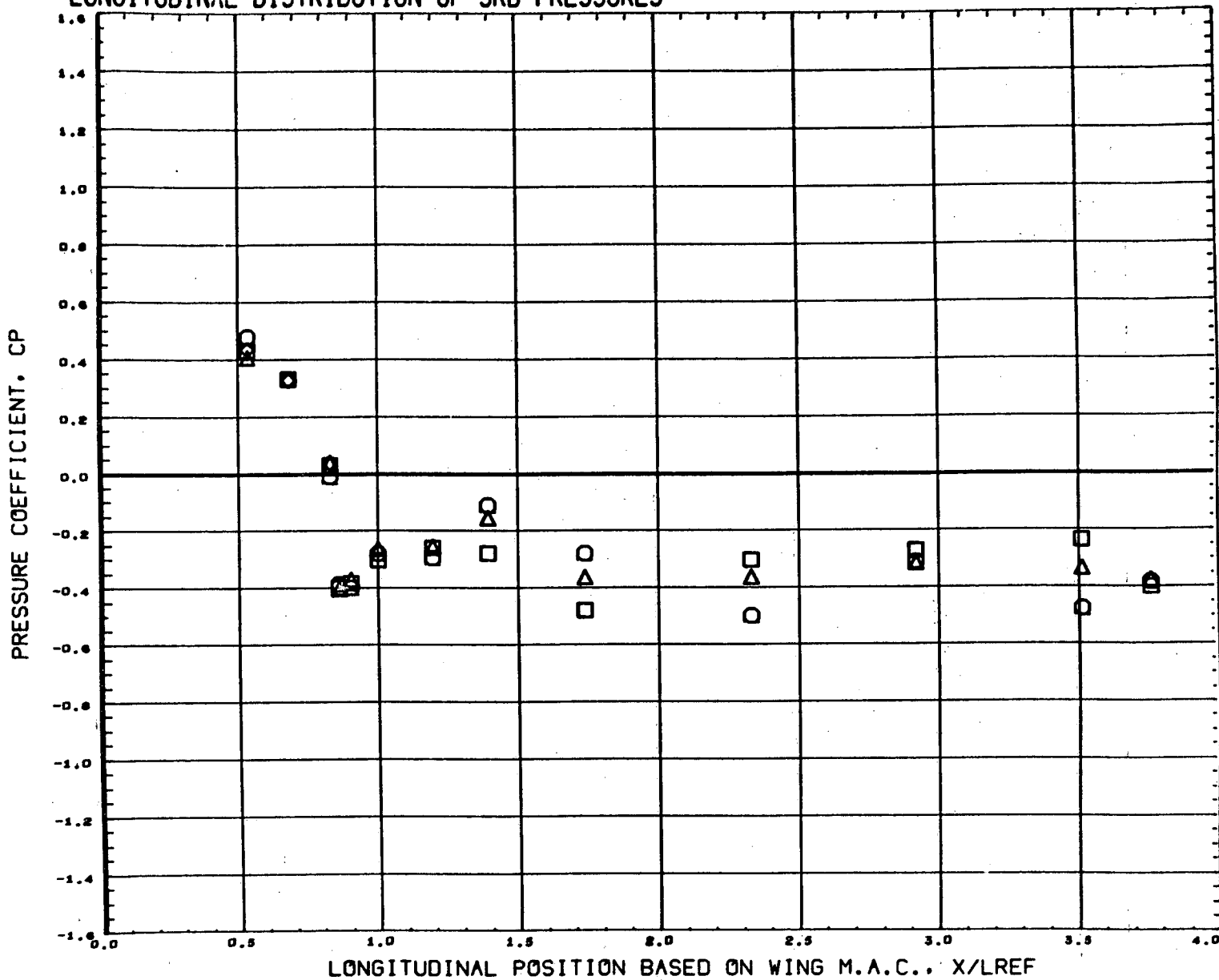


SYMBOL	PARAMETRIC VALUES		
	PHI	ALPHA	MACH
○	0.000	- 10.000	1.200
△	15.000		
◇	30.000		
□	45.000		

BETA 0.000 ORBINC 0.000
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

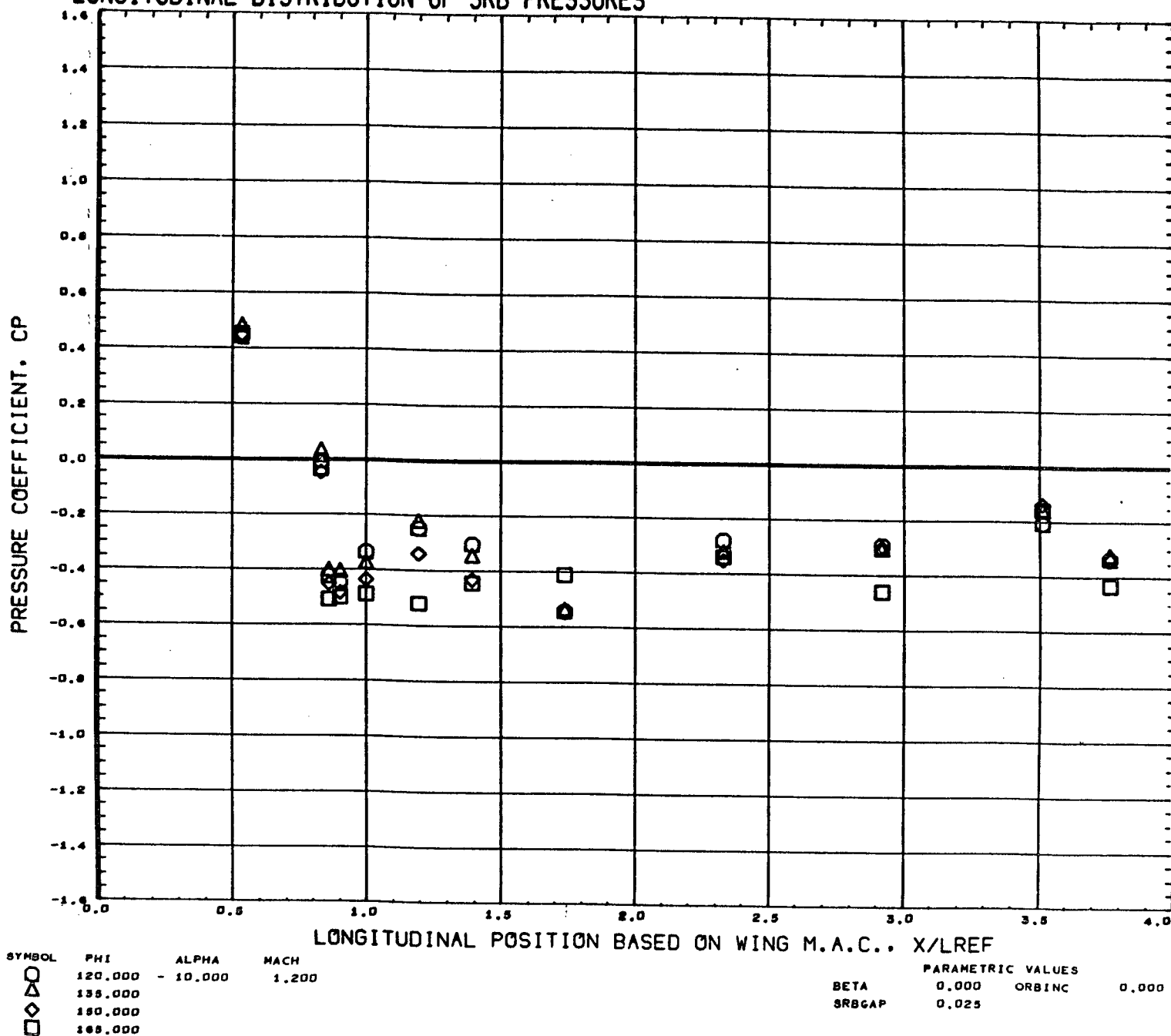


SYMBOL PHI ALPHA MACH
 ○ 60,000 - 10,000 1.200
 △ 75,000
 ◇ 90,000
 □ 105,000

PARAMETRIC VALUES
 BETA 0.000 ORBINC 0.000
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

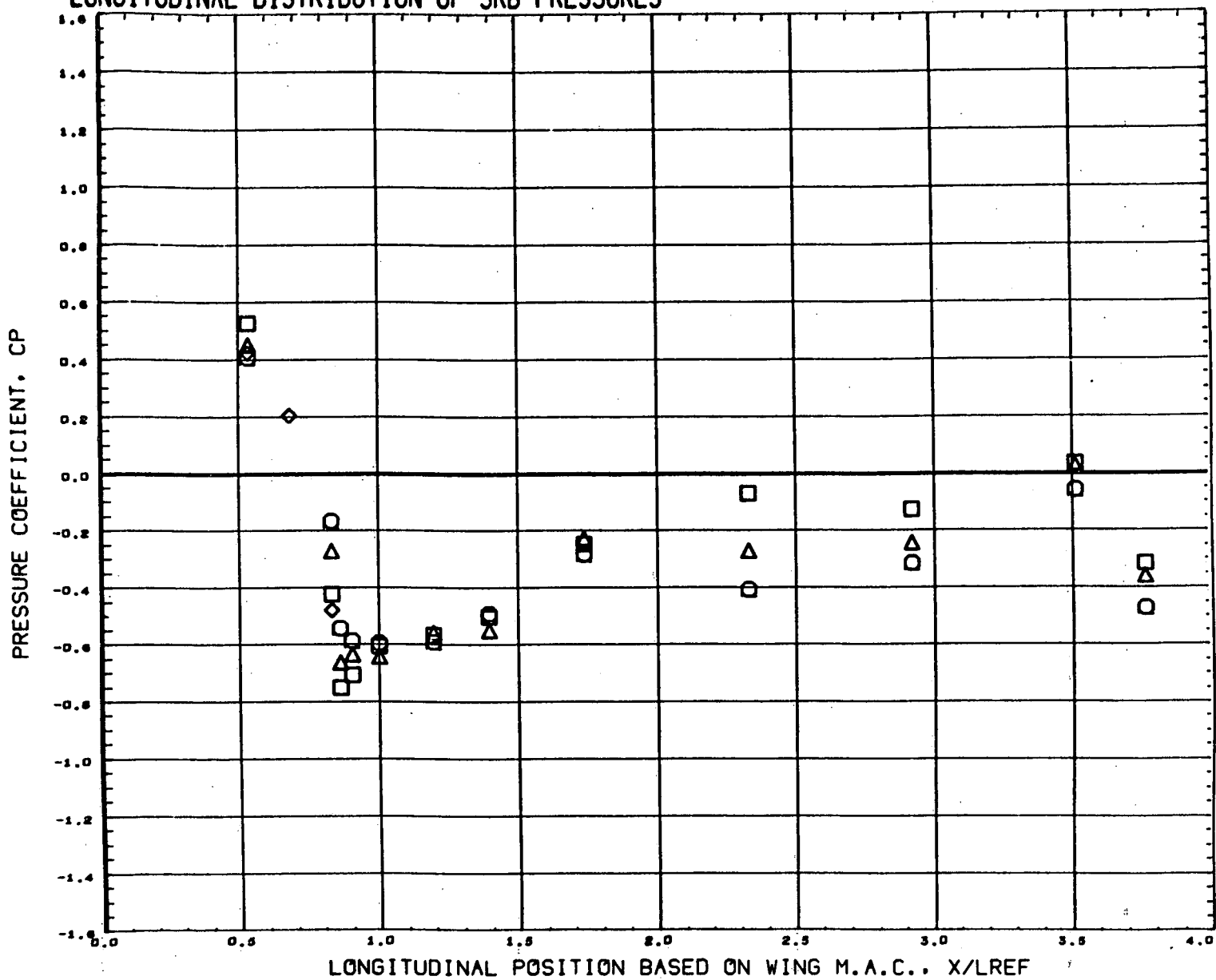


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R702SM)

PAGE 468

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

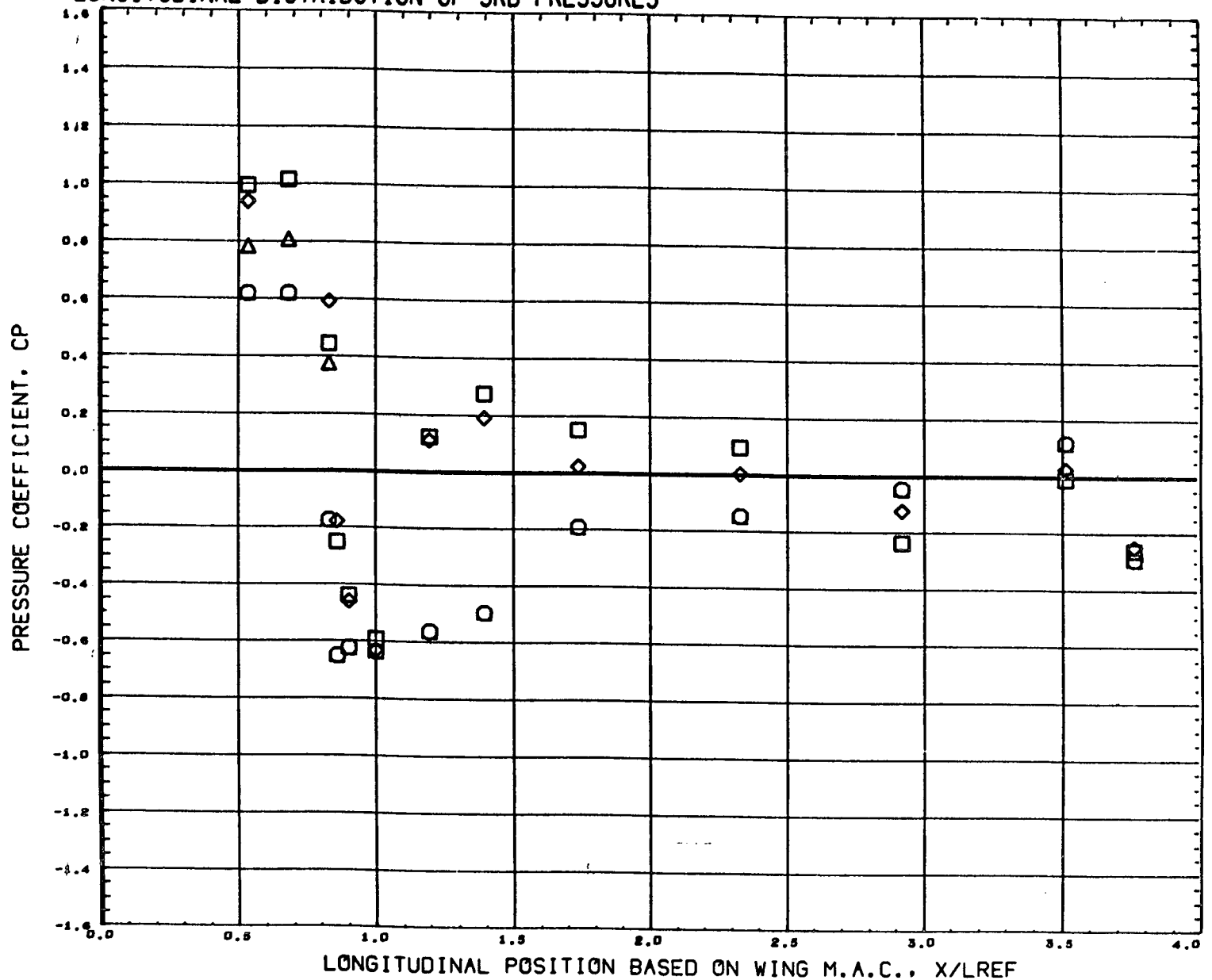


SYMBOL	PHI	ALPHA	MACH
○	180.000	- 10.000	1.200
△	195.000		
◇	210.000		
□	225.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC 0.000
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=3.369

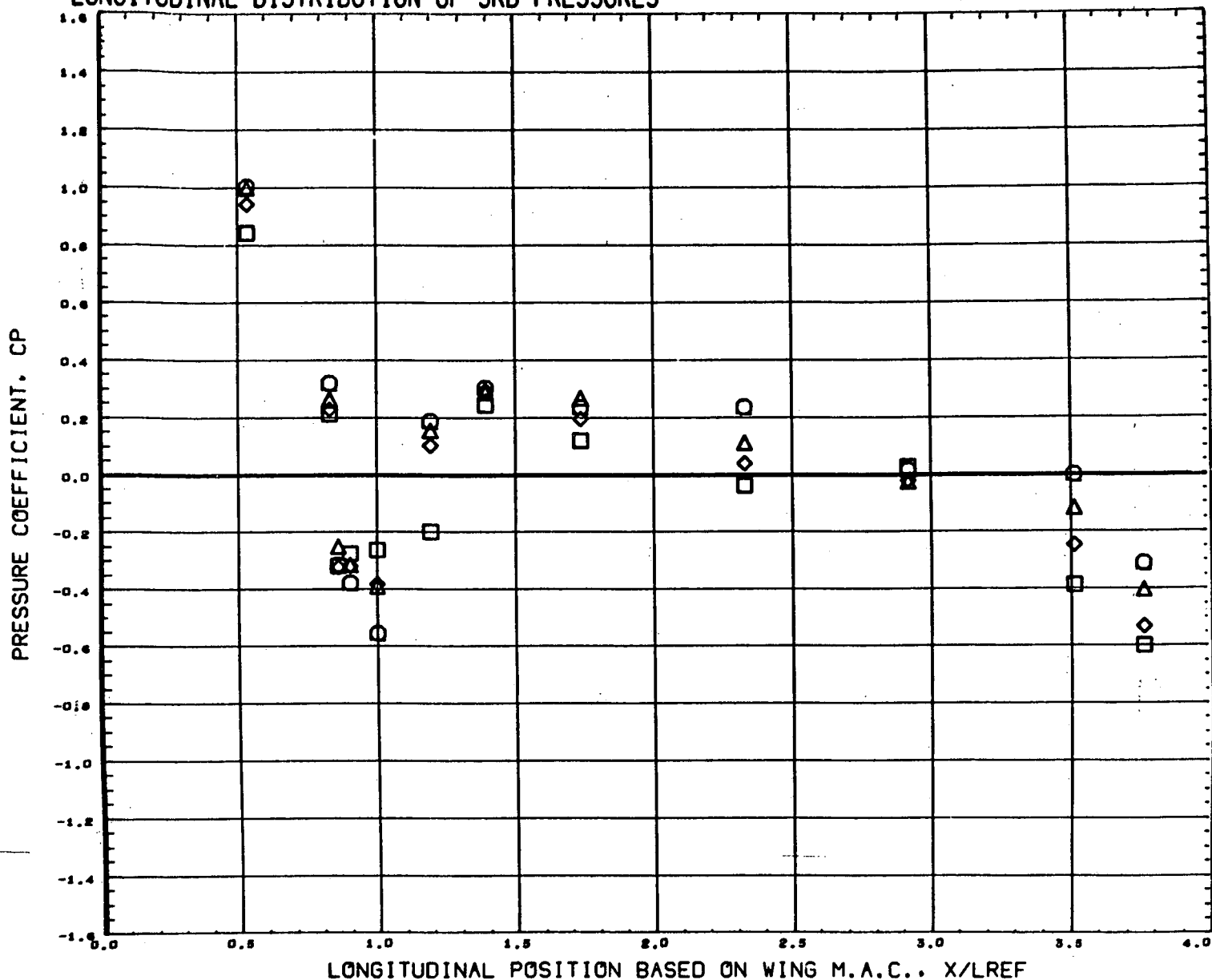
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	- 10.000	1.200	BETA	0.000	ORBINC 0.000
△	255.000			SRBGAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

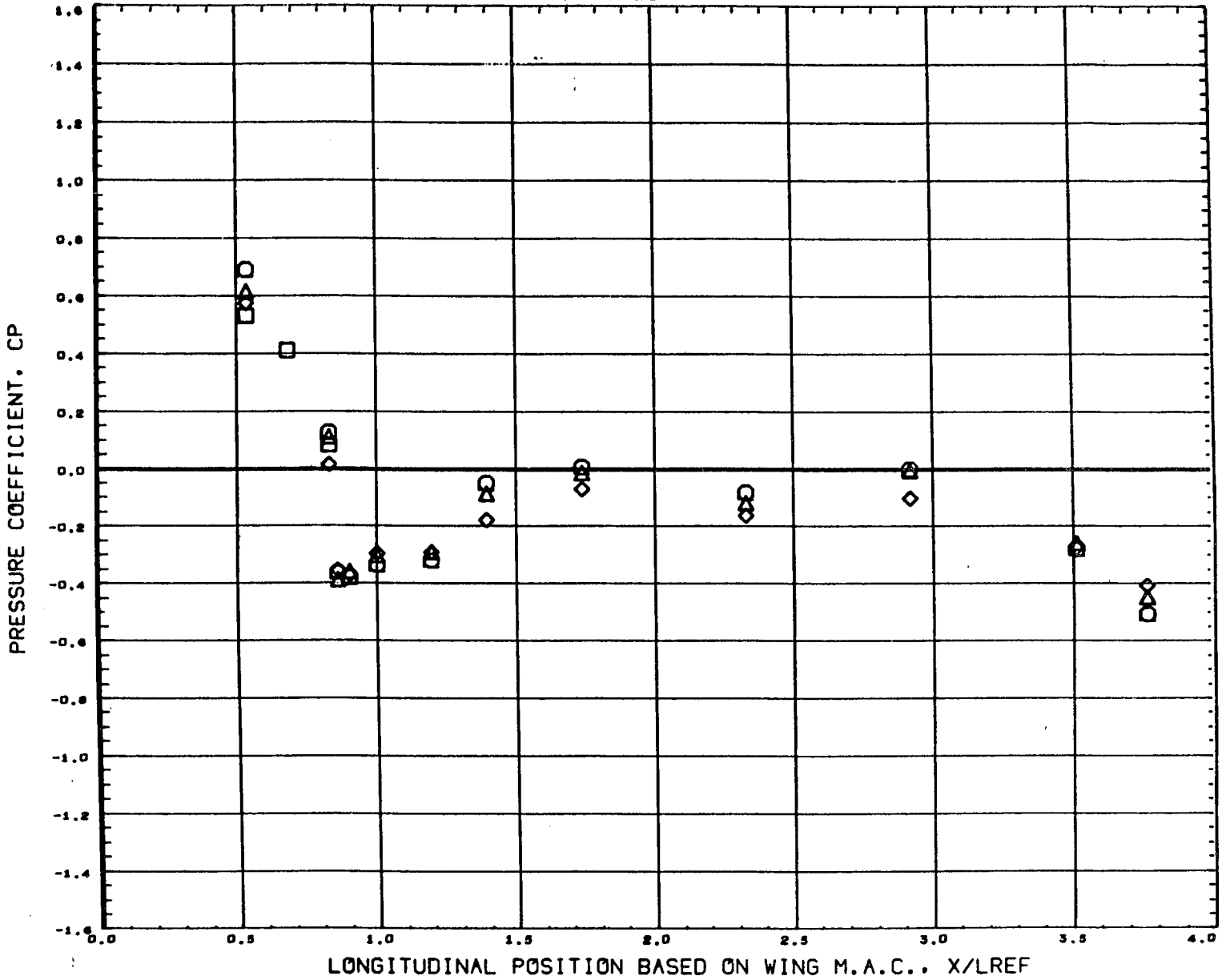


SYMBOL	PHI	ALPHA	MACH
○	300,000	- 10,000	1.200
△	315,000		
◇	330,000		
□	345,000		

PARAMETRIC VALUES			
BETA	0.000	ORBINC	0.000
SRBGAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369.

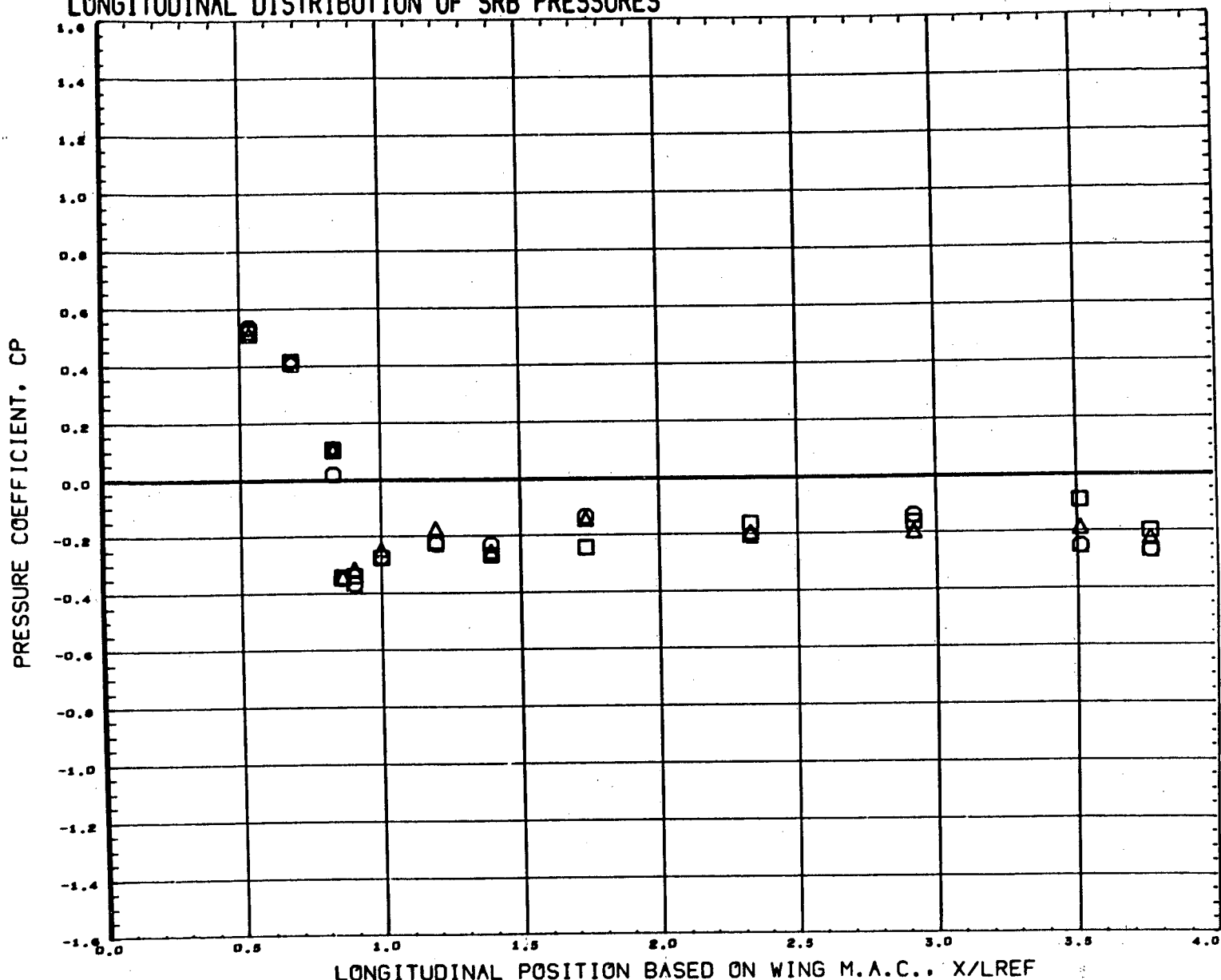
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES		
○	0.000	4.000	1.200	0.000	0.025	ORBINC	0.000	
◇	15.000							
□	30.000							
△	45.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL PHI ALPHA MACH
 ○ 60.000 - 4.000 1.200
 △ 75.000
 ◇ 90.000
 □ 105.000

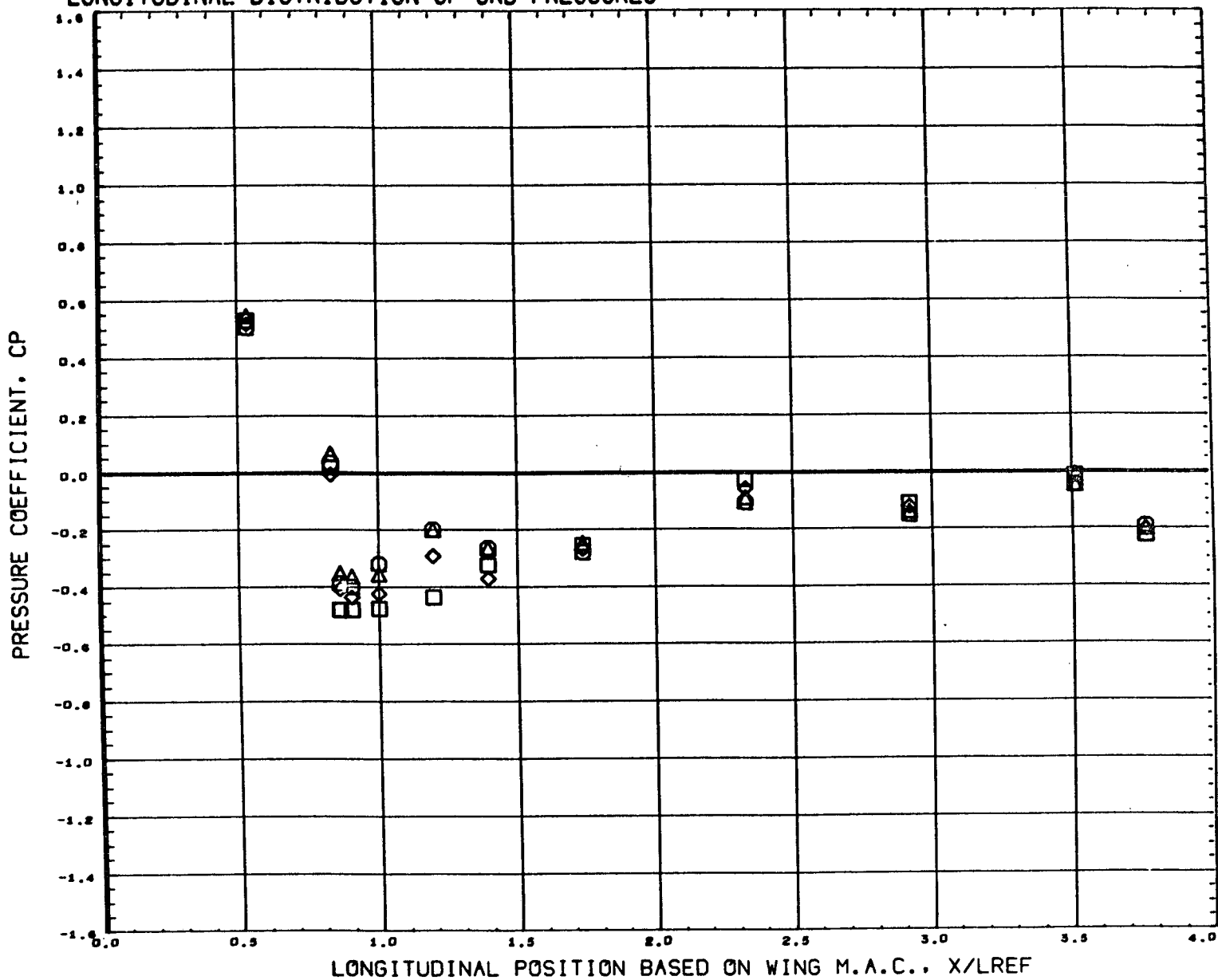
PARAMETRIC VALUES
 BETA 0.000 ORBINC 0.000
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 473

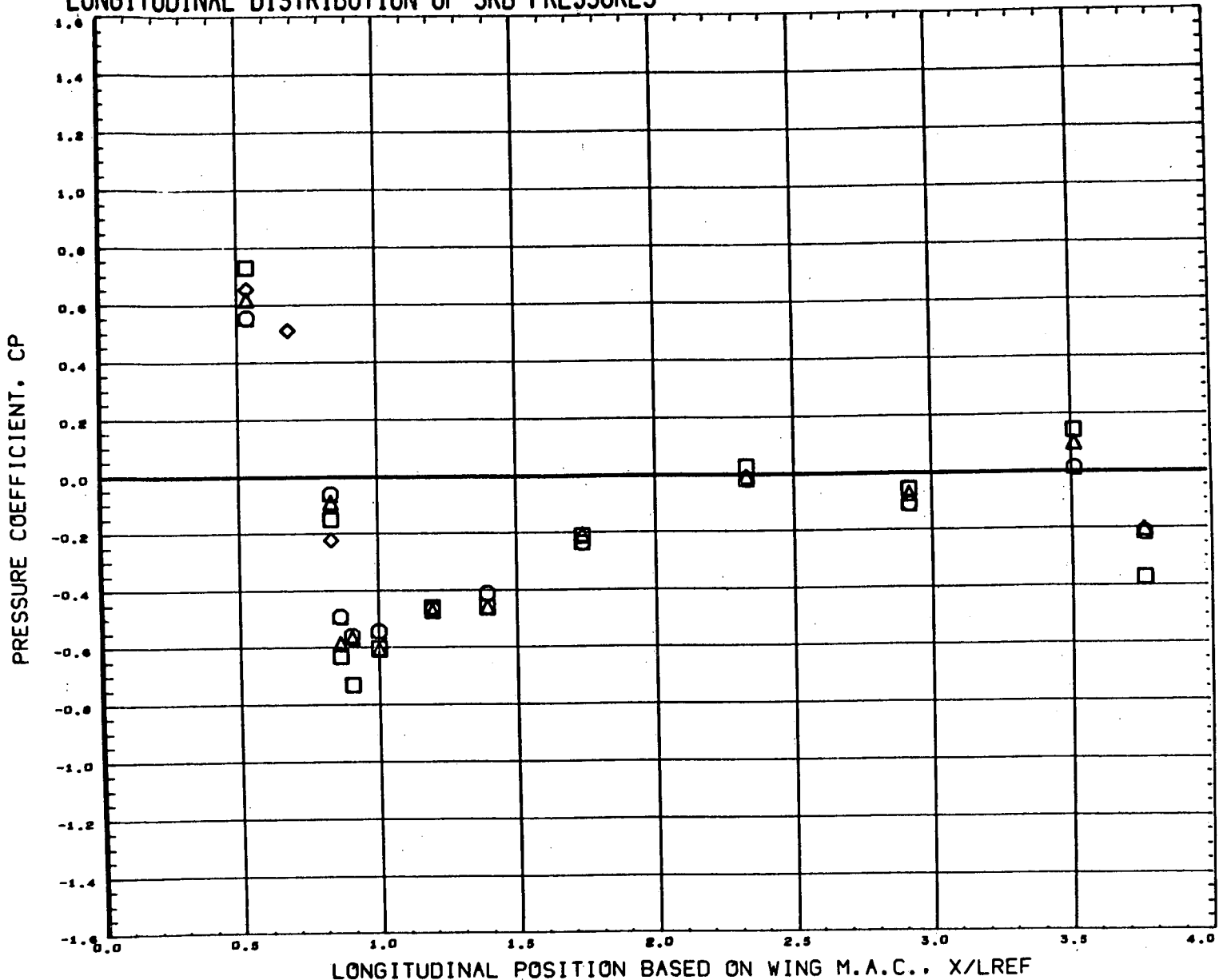
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120,000	- 4.000	1.200	BETA	0.000	ORBINC 0.000
△	135,000			SRBGAP	0.025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH
□	180.000	- 4.000	1.200
◇	195.000		
△	210.000		
○	225.000		

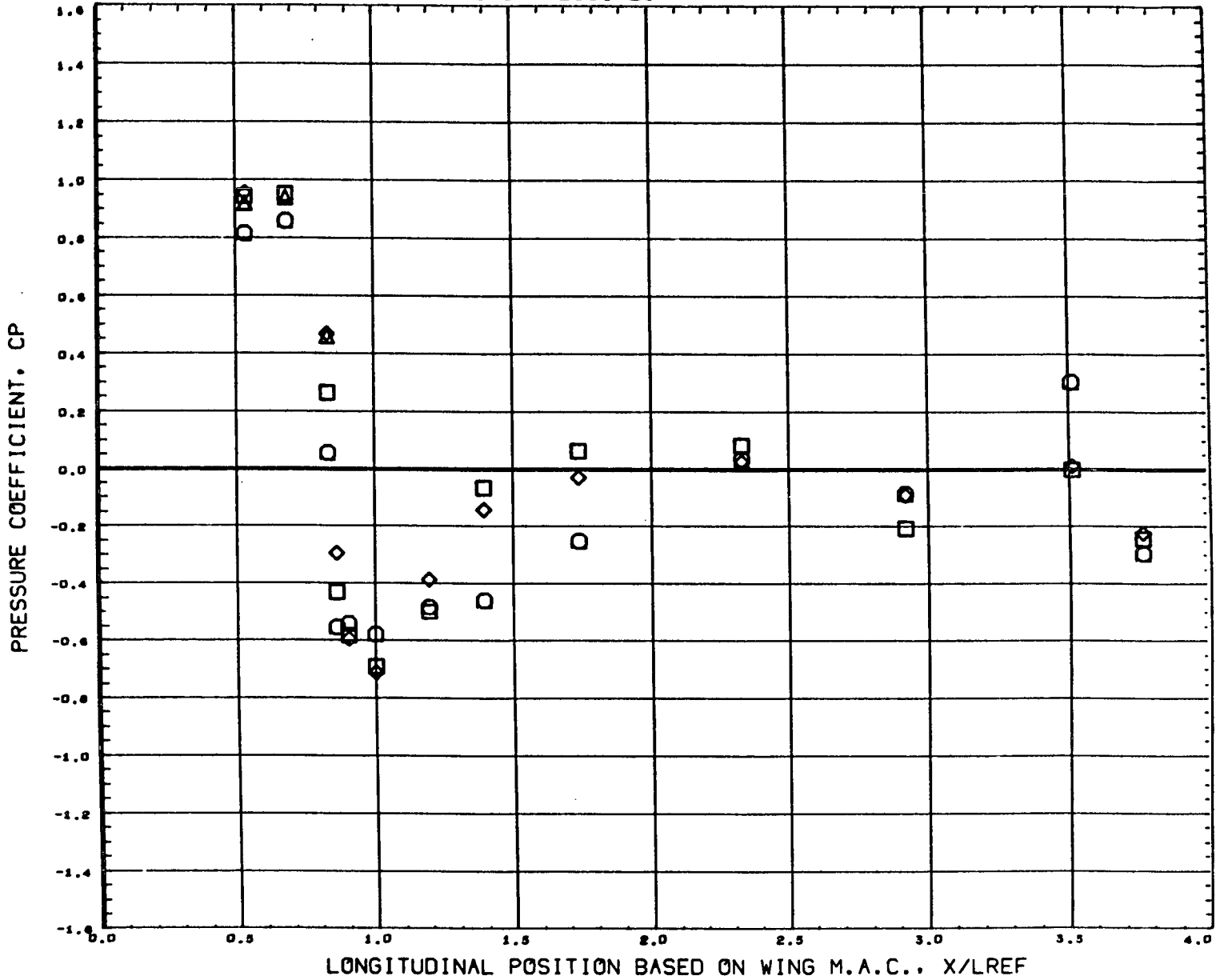
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 475

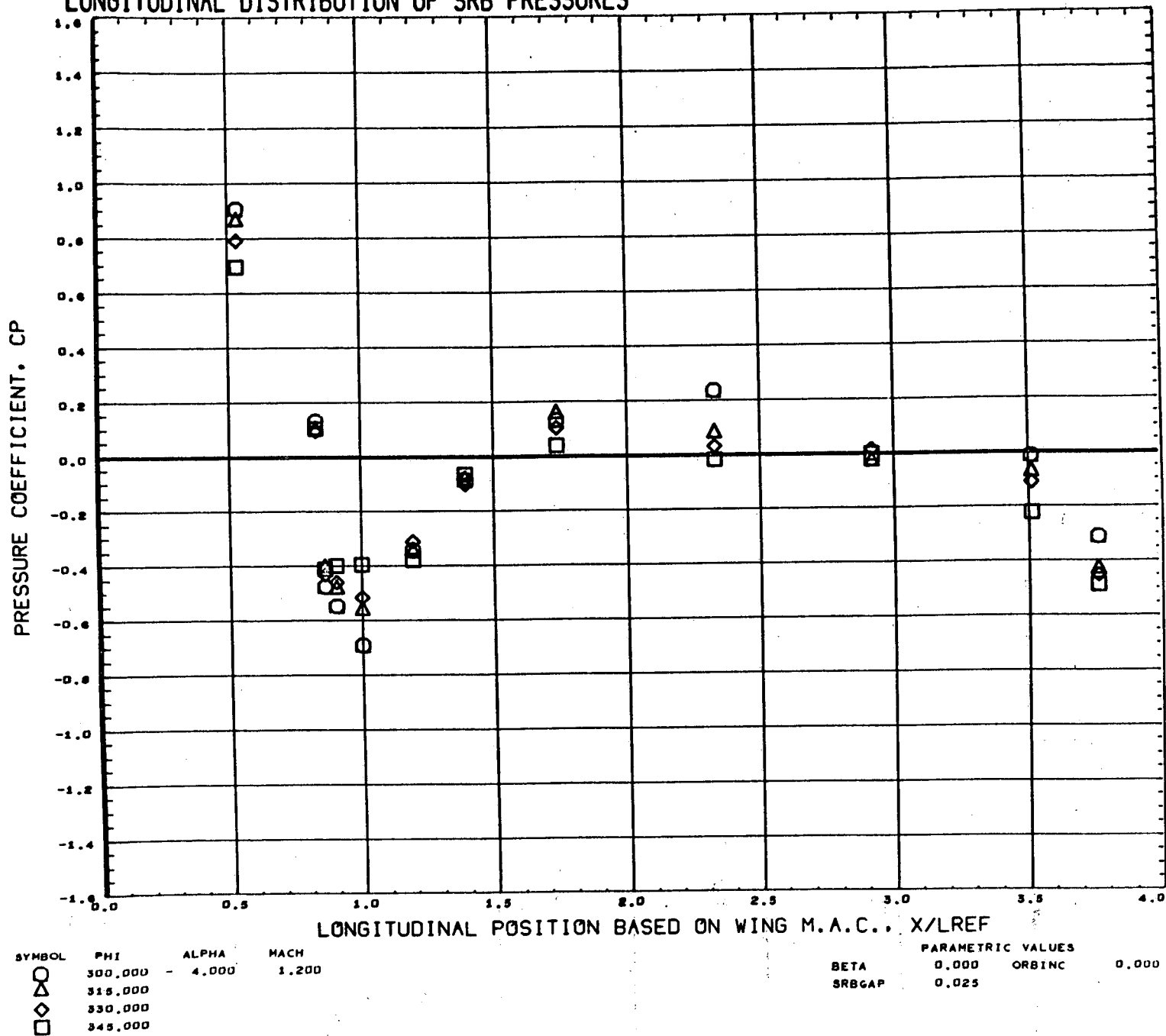
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240,000	- 4,000	1,200	BETA	0,000	ORBINC 0,000
◇	255,000			SRBGAP	0,025	
□	270,000					
△	285,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

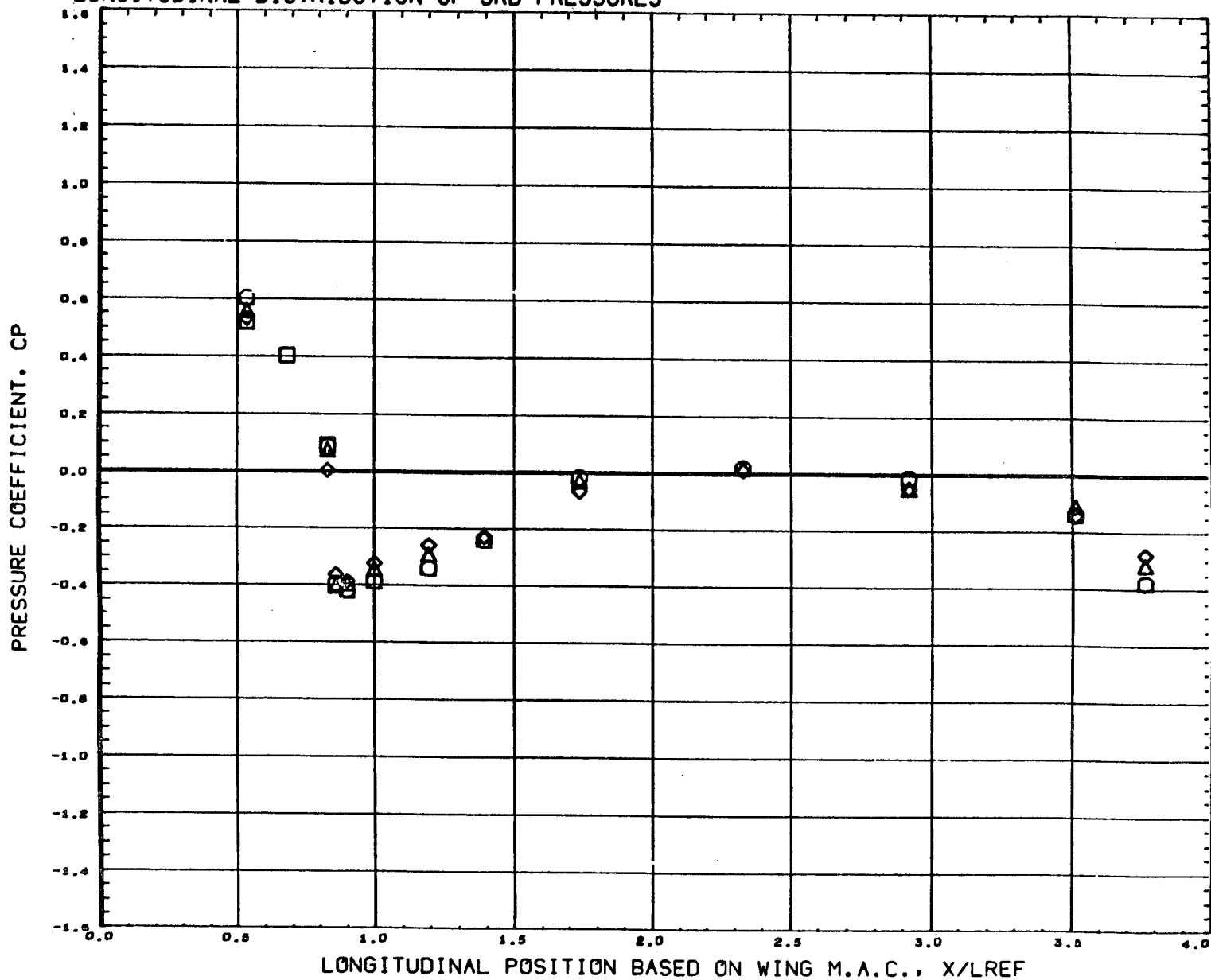


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 477

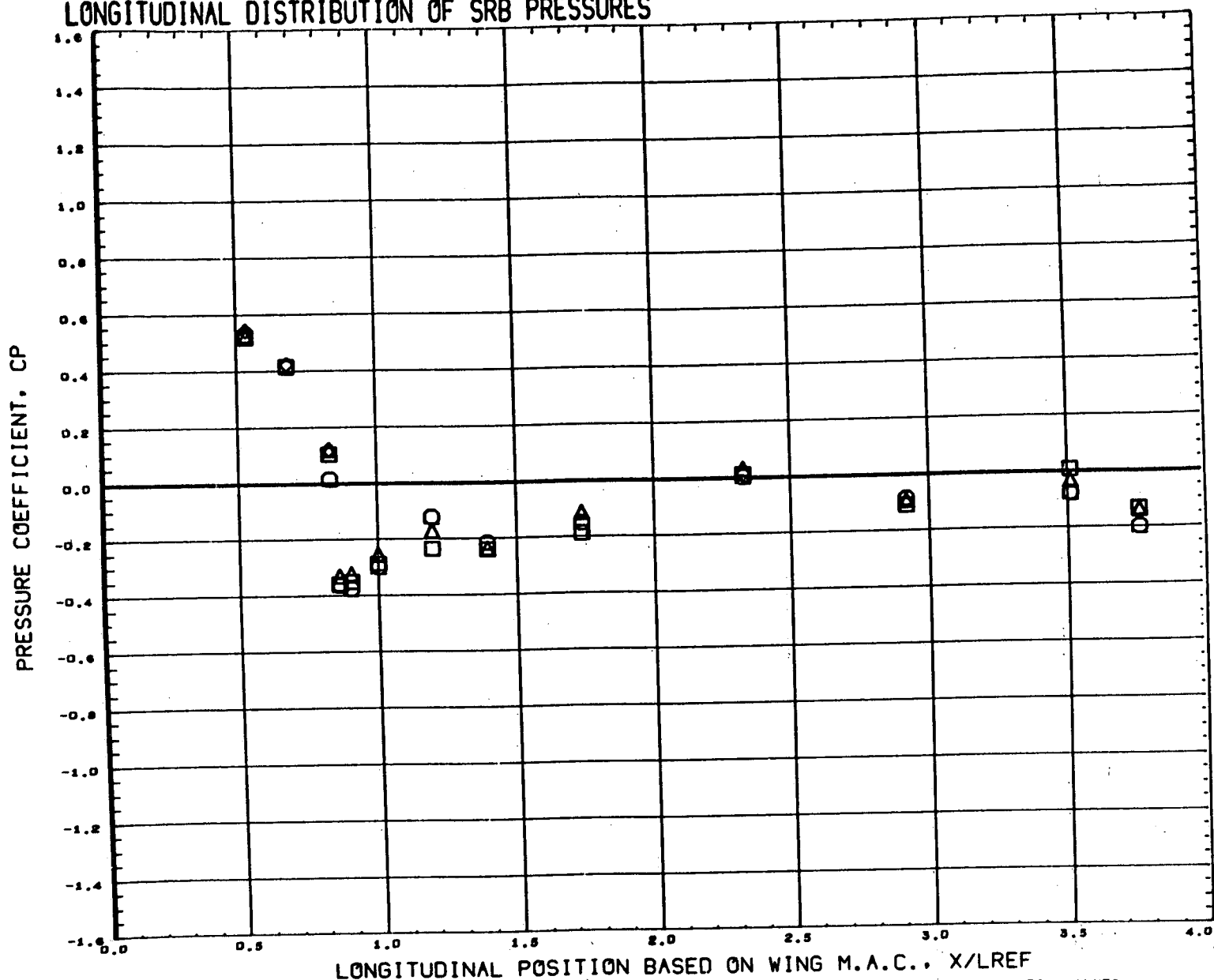
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES	SRBGAP	ORBINC	
○	0.000	0.000	1.200	0.000	0.000	0.025	0.000	
◇	15.000							
△	30.000							
□	45.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	60,000	0.000	1.200
△	75,000		
◇	90,000		
□	105,000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC
SRBGAP	0.025	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R702SM)

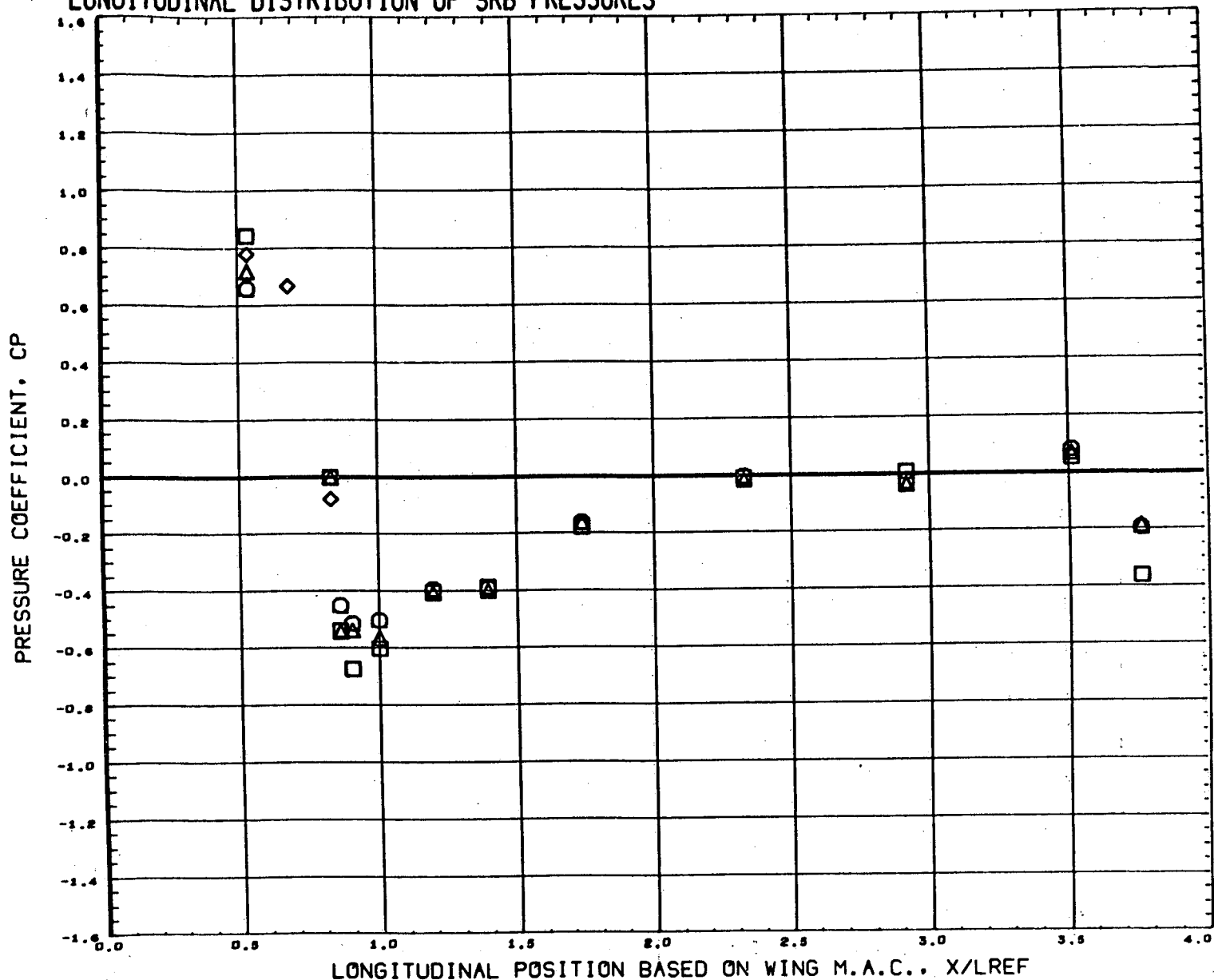
PAGE 479

Figure 1 is a scatter plot titled "PRESSURE COEFFICIENT, CP" on the y-axis and "NORMALIZED DISTANCE FROM LEADING EDGE, X/C" on the x-axis. The y-axis ranges from -1.6 to 1.6 with major grid lines every 0.2 units. The x-axis ranges from 0.0 to 4.0 with major grid lines every 0.5 units. A horizontal line is drawn at CP = 0. Data points are plotted for various angles of attack (alpha) and are categorized by shape: circles, triangles, squares, diamonds, and crosses. The data points show a general trend of decreasing CP as X/C increases, with some scatter at lower X/C values.

X/C	CP (Circles)	CP (Triangles)	CP (Squares)	CP (Diamonds)	CP (Crosses)
0.5	0.55				
0.8	0.05	-0.35	-0.45		
1.0	-0.30	-0.35	-0.45		
1.2	-0.25		-0.40		
1.4	-0.25			-0.30	
1.7					-0.15
2.3					0.00
2.9					-0.05
3.5					0.05
3.8					-0.15

NOTE- SRB NOSE LOCATED AT X/LREF=.369

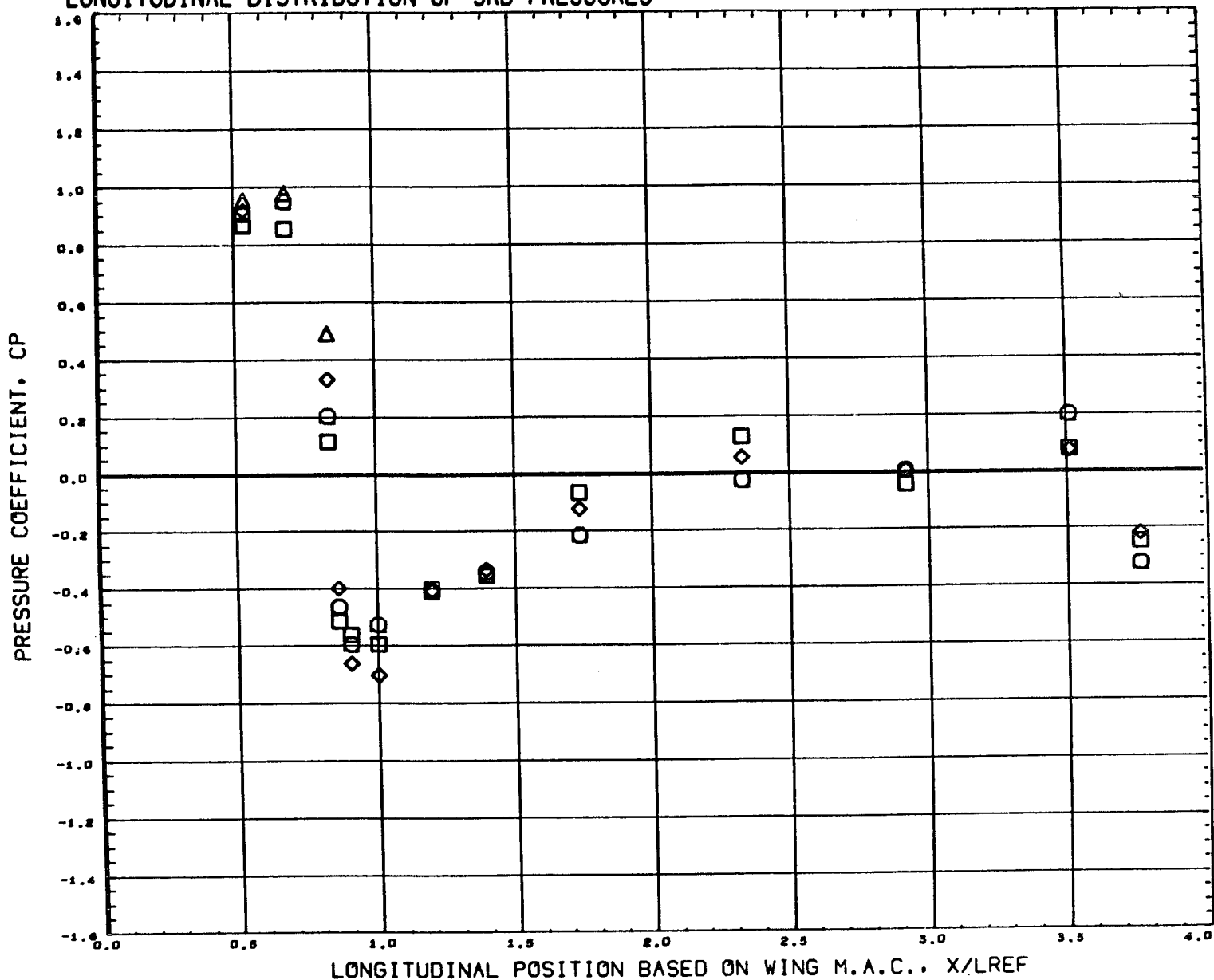
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	0.000
○	180,000	0.000	1.200	0.000	0.025			
△	195,000							
◇	210,000							
□	225,000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

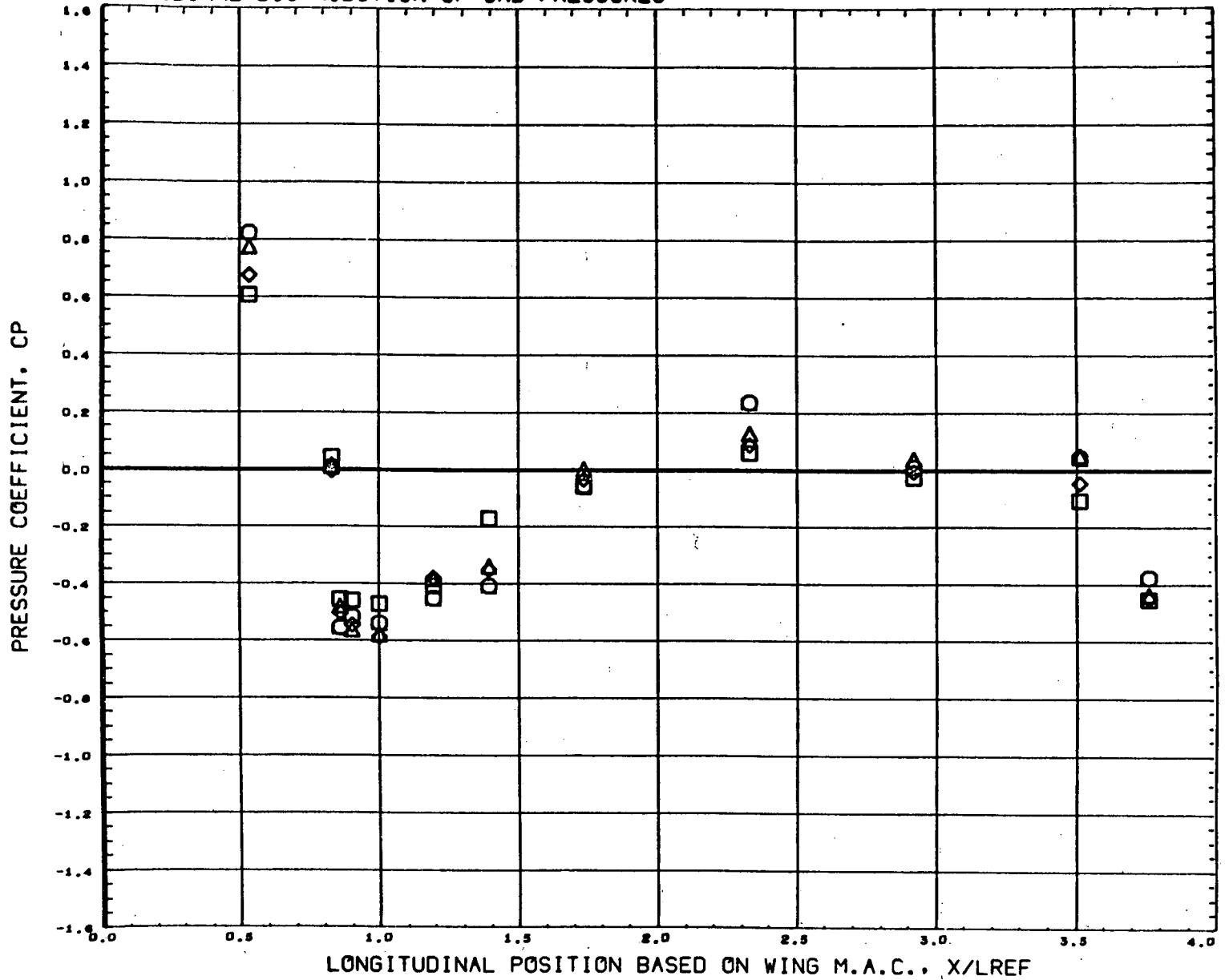
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	0.000
○	240,000	0.000	1.200					
△	255,000							
◇	270,000							
□	285,000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

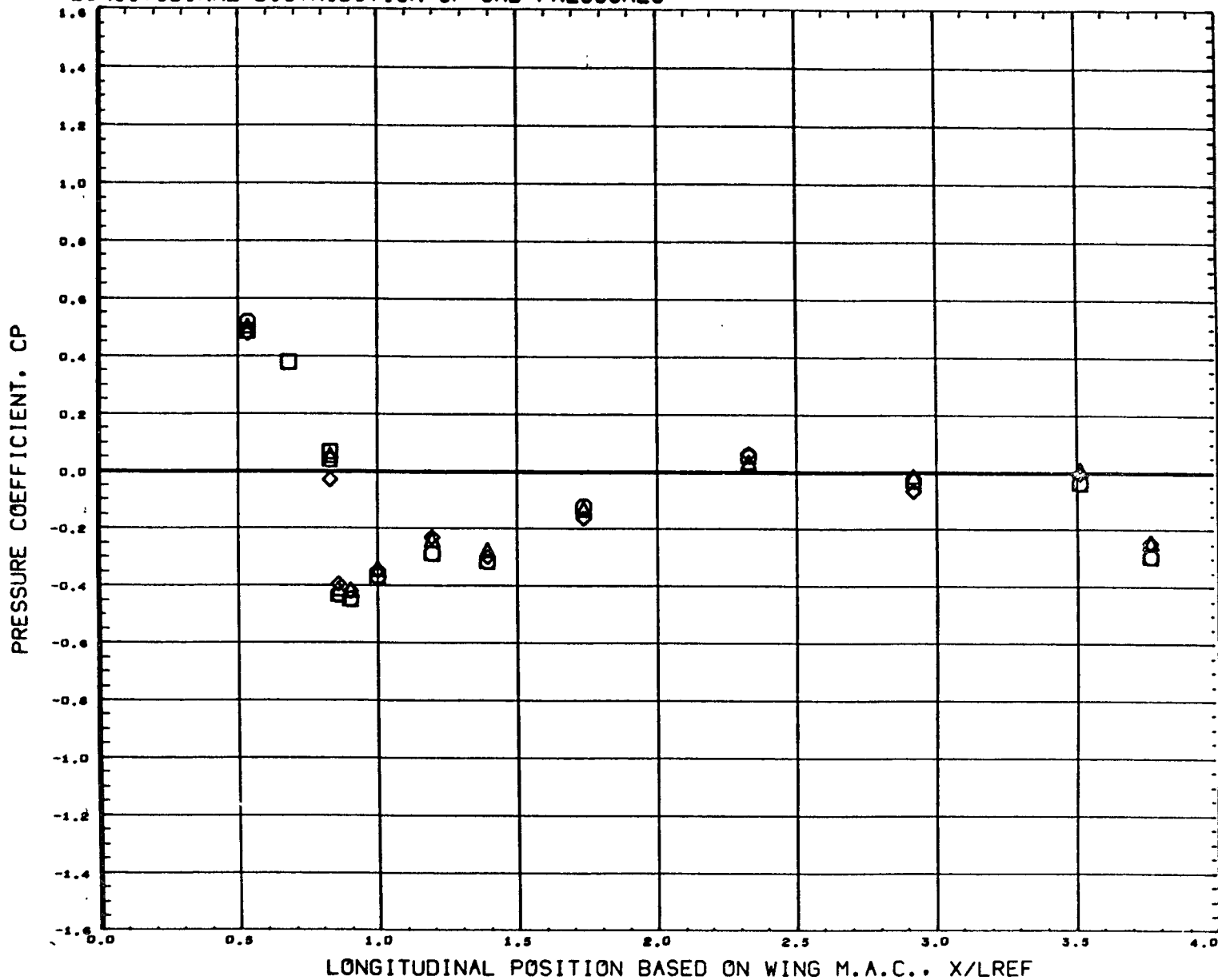
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300,000	0.000	1.200	BETA	0.000	ORBINC 0.000
△	315,000			SRBGAP	0.025	
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

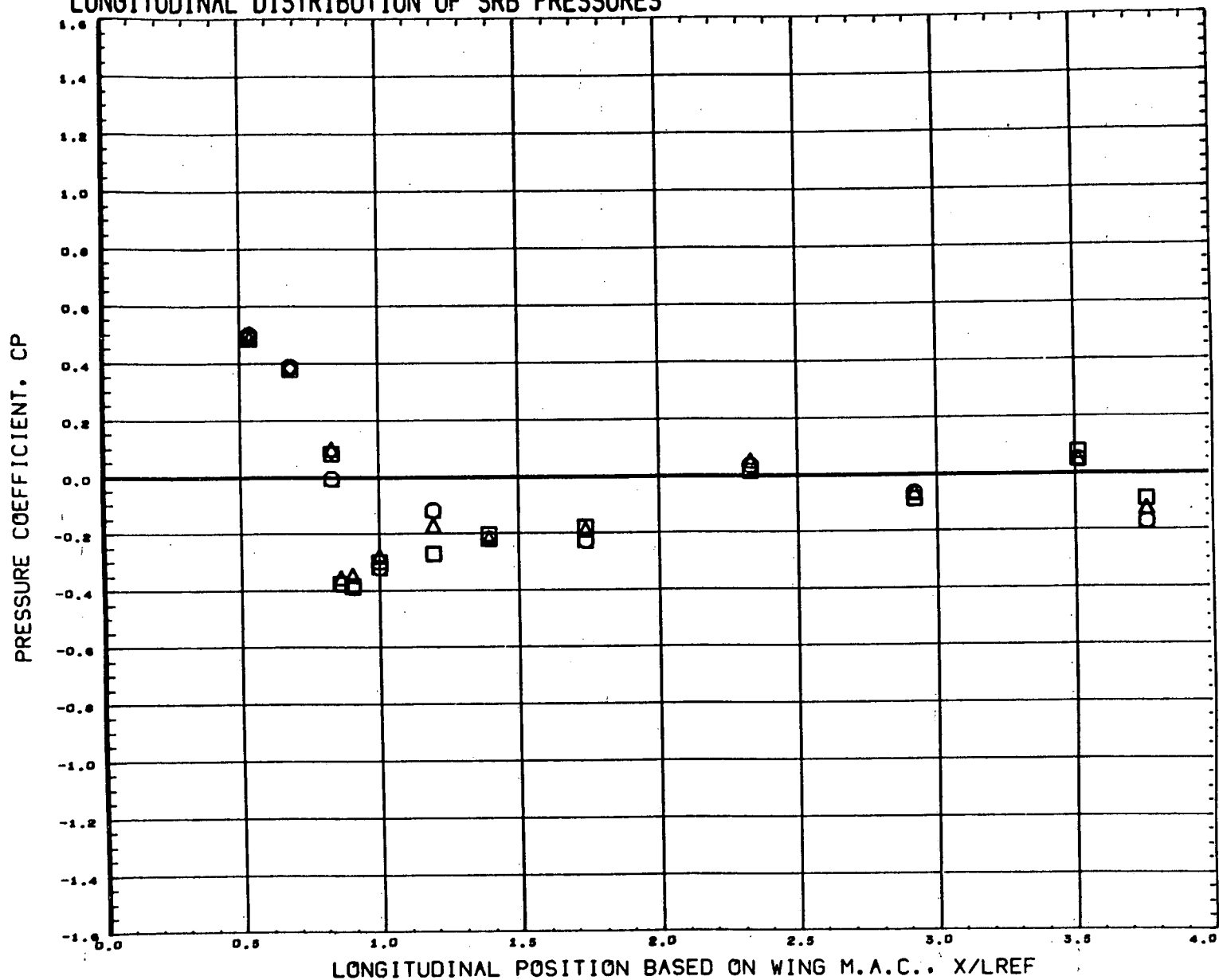
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	4.000	1.200	BETA	0.000	ORBINC 0.000
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

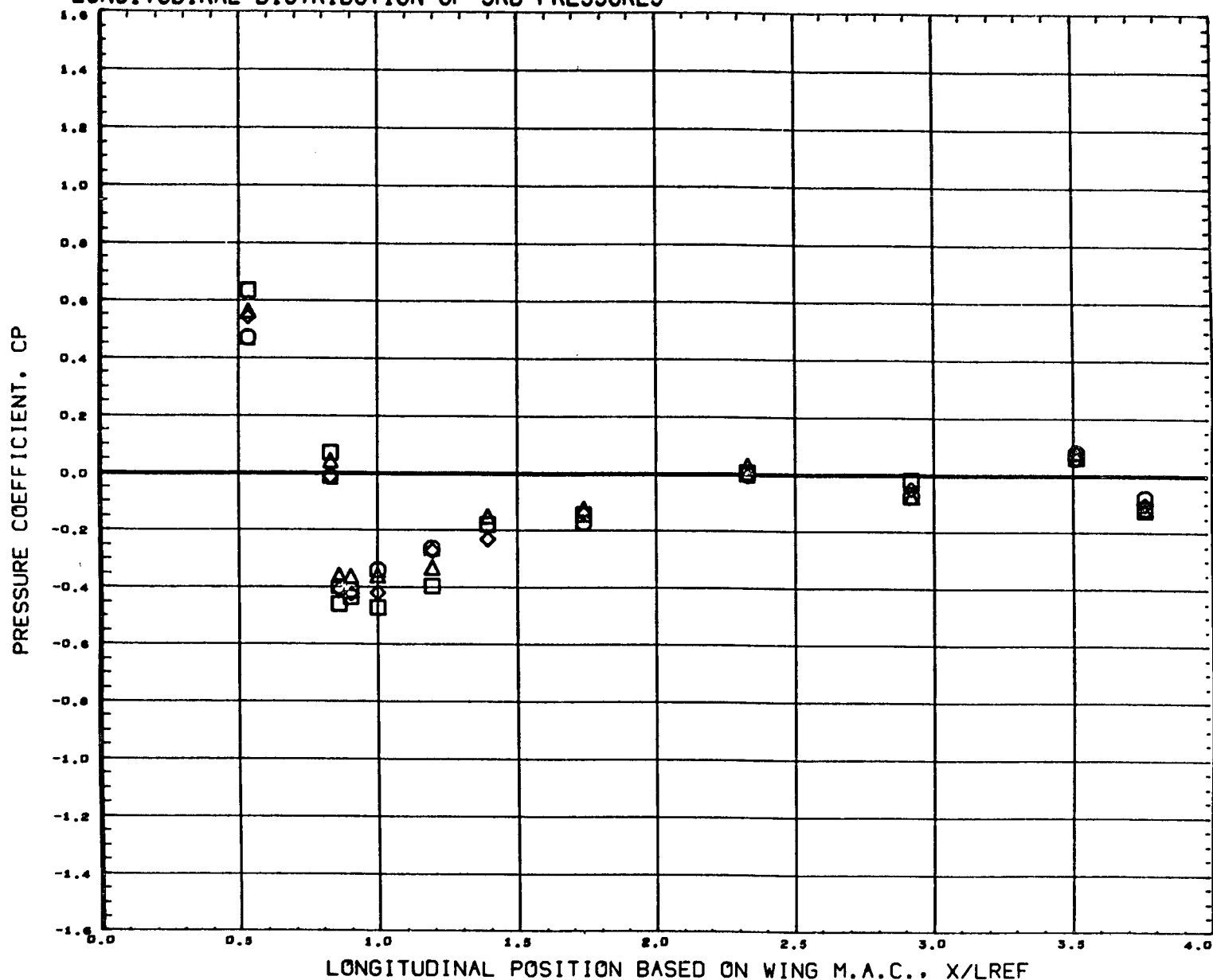
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	4.000	1.200	BETA	0.000	ORBINC 0.000
△	75.000			SRBGAP	0.025	
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

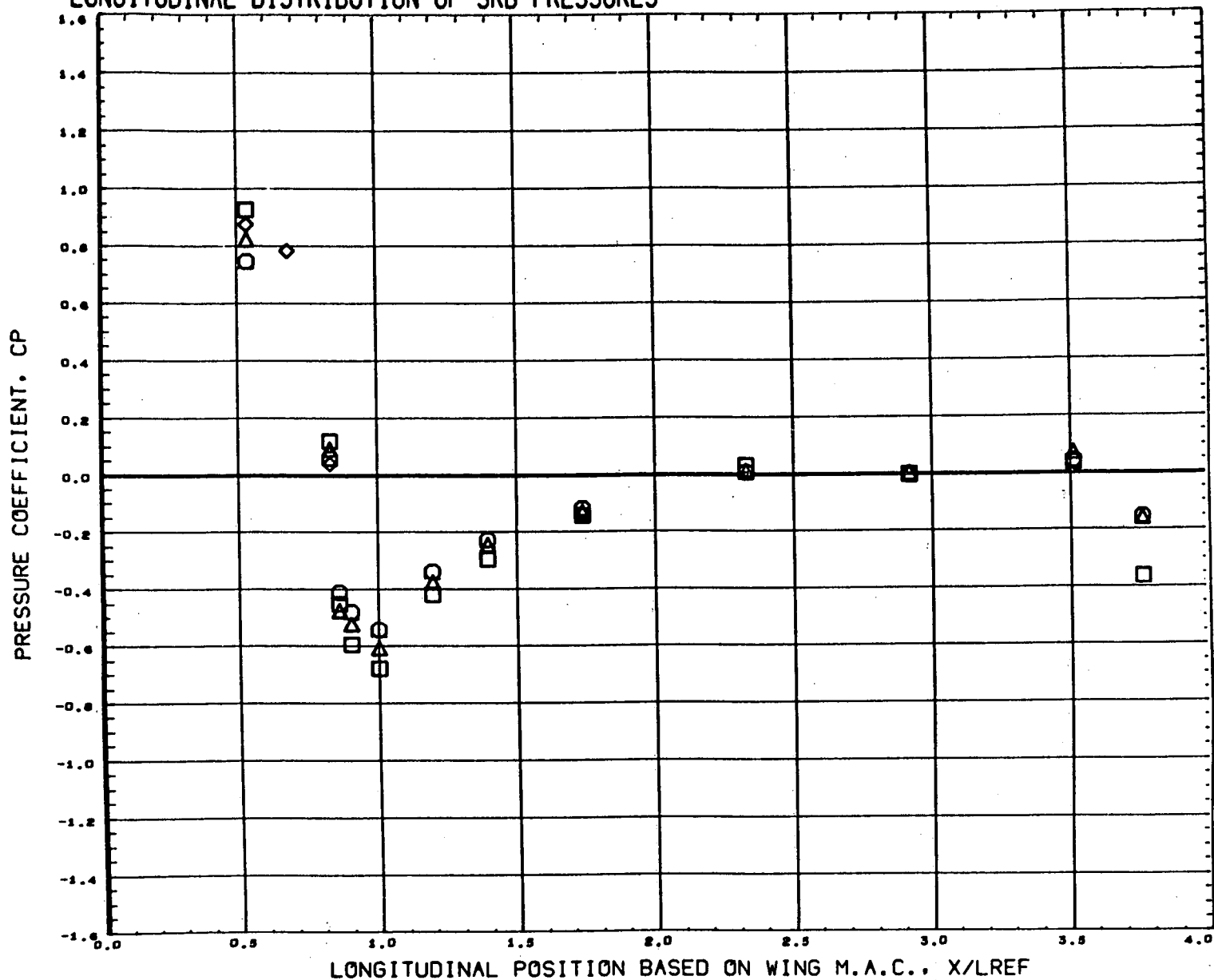
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120,000	4.000	1.200	BETA	0.000	ORBNIC 0.000
△	135,000			SRBGAP	0.025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

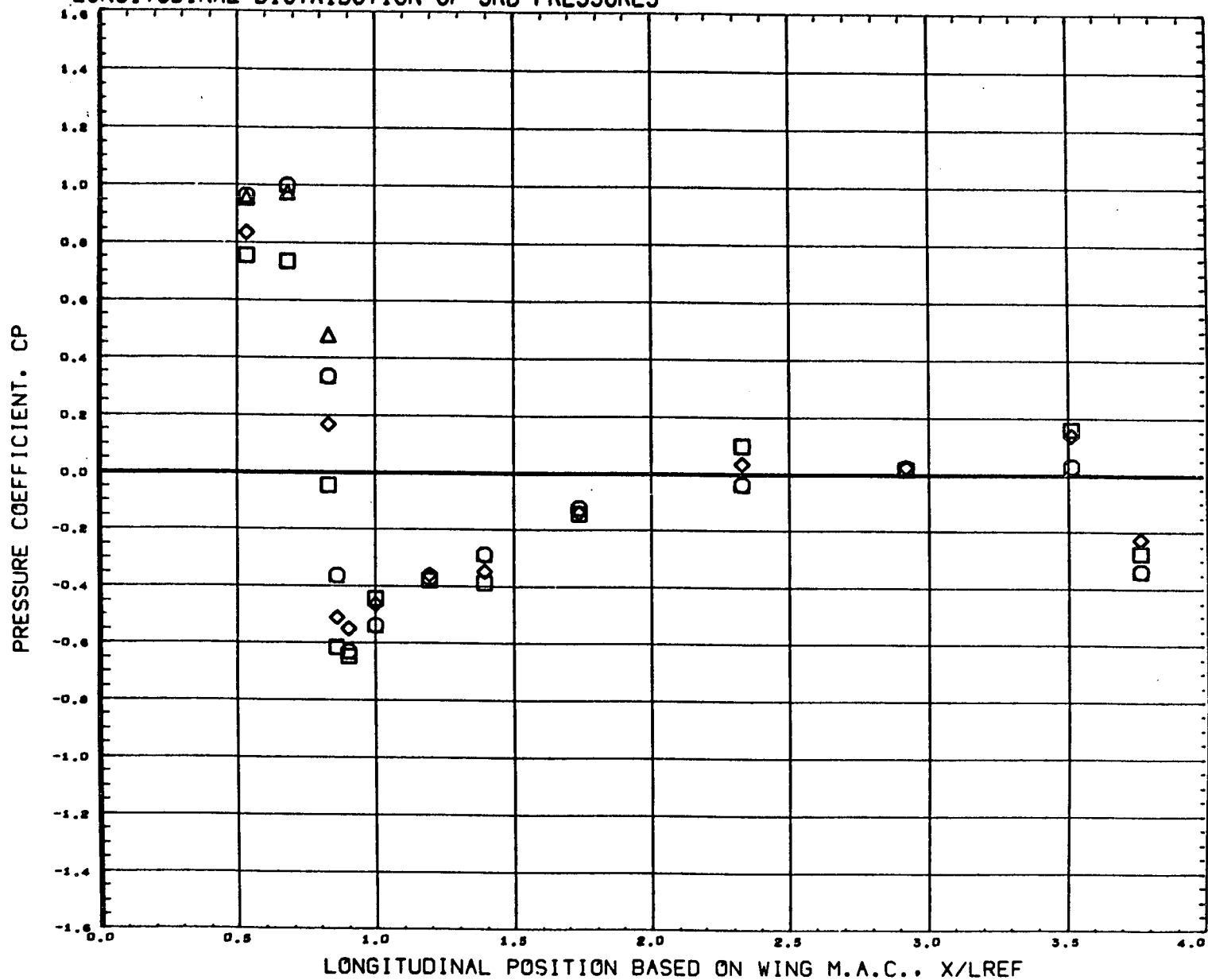
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	
○	190.000	4.000	1.200	0.000		ORBINC	0.000
△	195.000						
◇	210.000						
□	225.000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

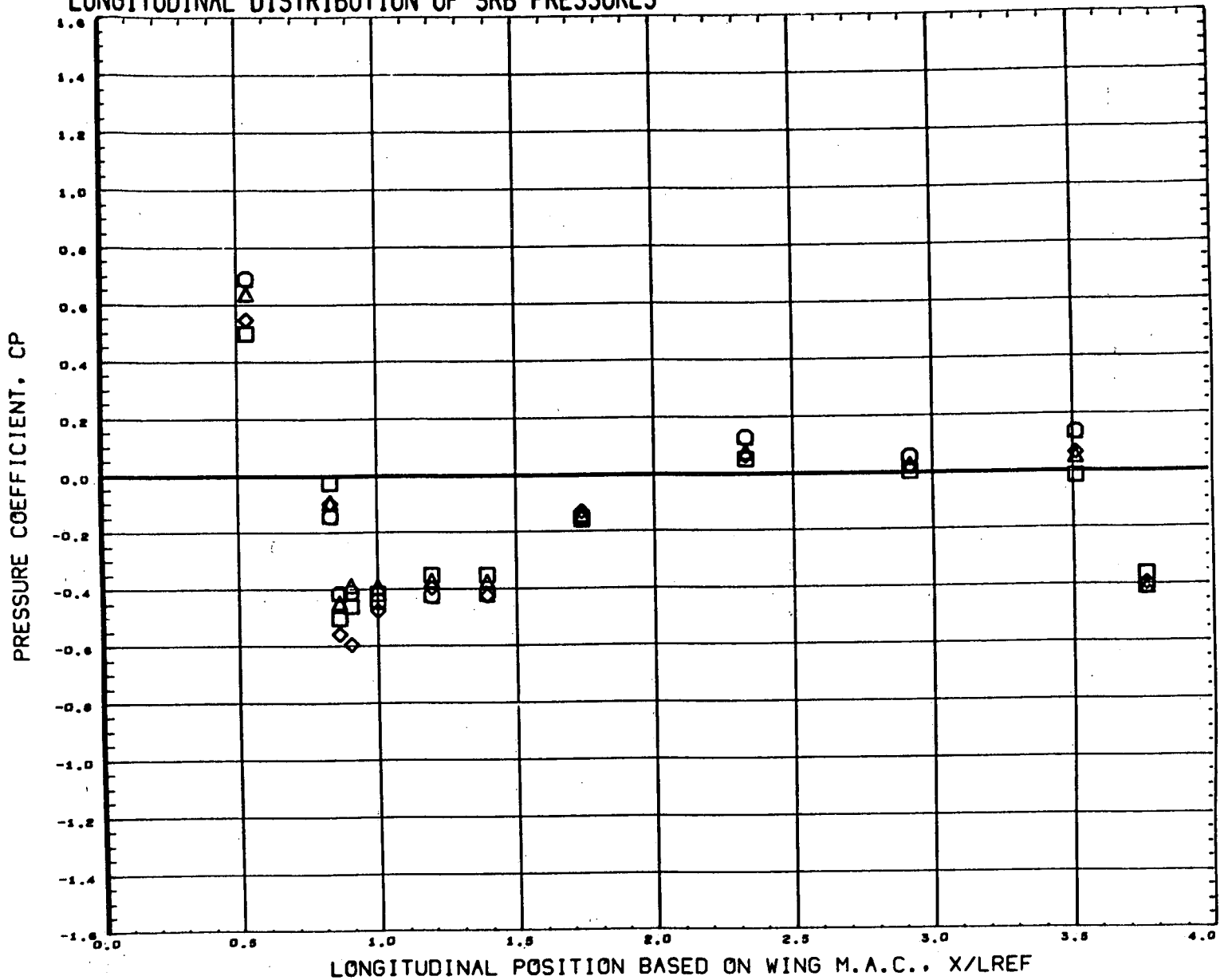
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240,000	4.000	1.200	BETA	0.000	ORBINC 0.000
△	255,000			SRBGAP	0.025	
◇	270,000					
□	285,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

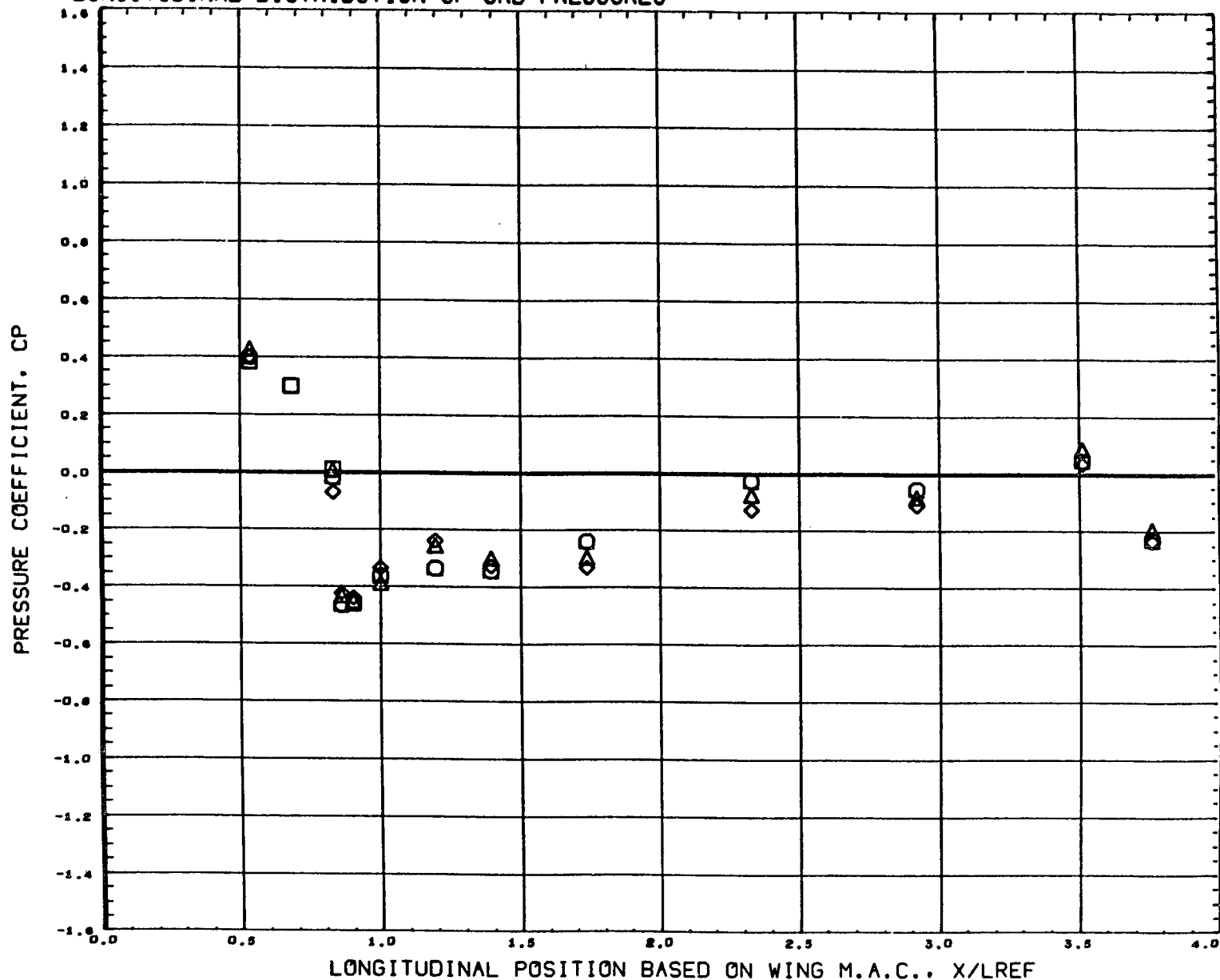
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300,000	4.000	1.200	BETA	0.000	ORBINC 0.000
△	315,000			SRBGAP	0.025	
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

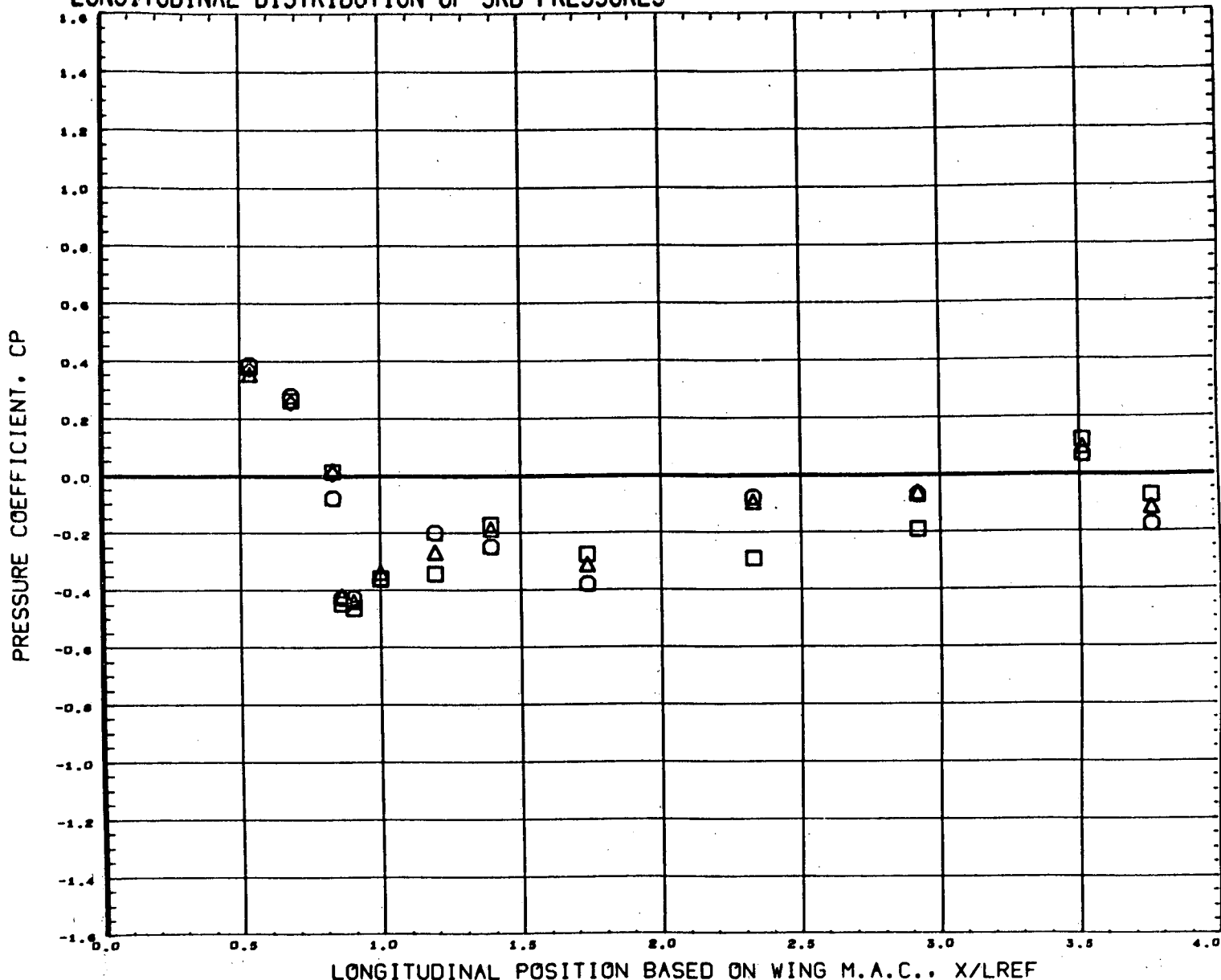
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	1.200	BETA	0.000	ORBINC 0.000
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

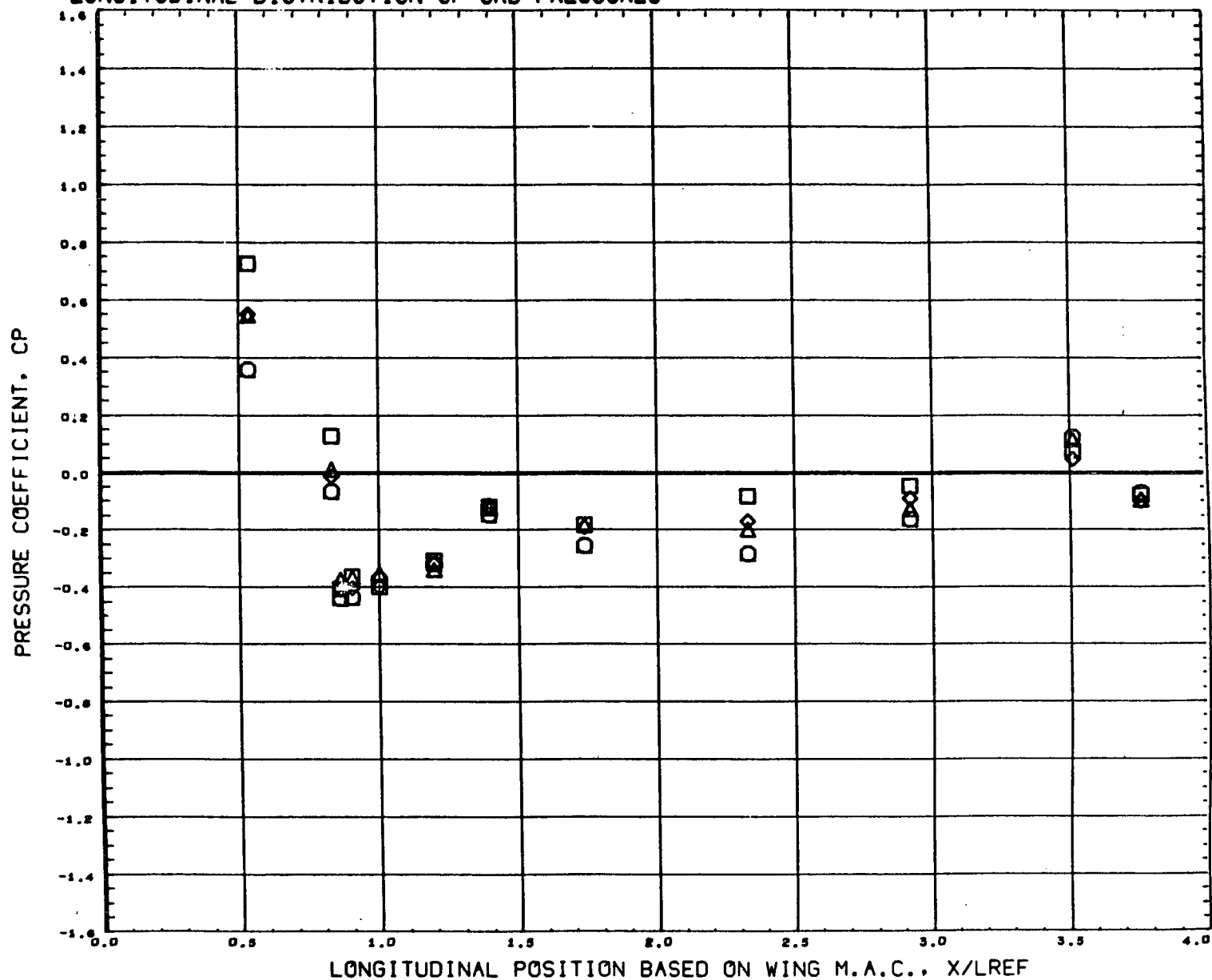
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	10.000	1.200	BETA	0.000	ORBINC 0.000
△	75.000			SRBCAP	0.025	
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

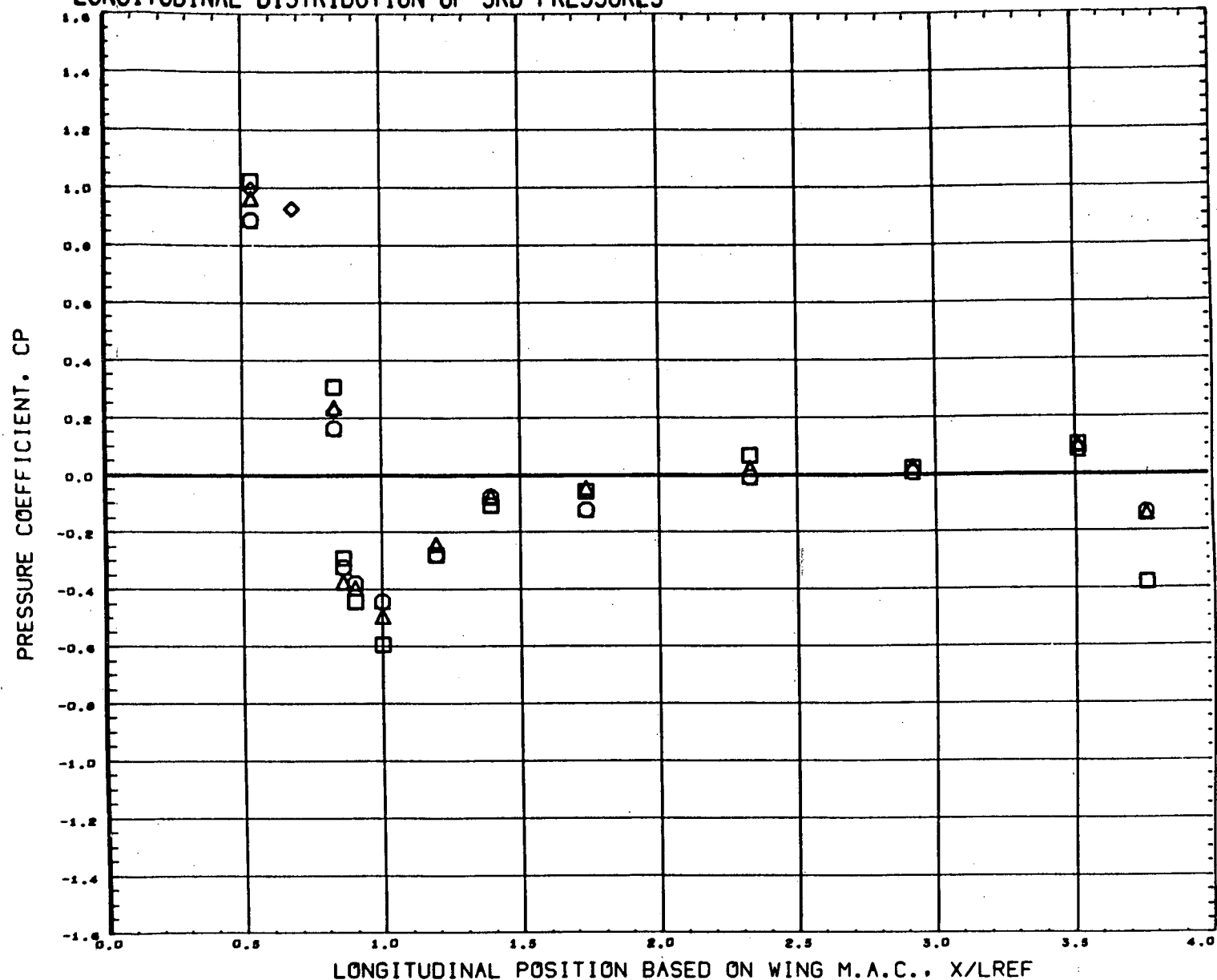
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120,000	10,000	1,200	BETA	0,000	ORBINC 0,000
△	135,000			SRBCAP	0,025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL

○
△
◇
□

PHI

180.000
195.000
210.000
225.000

ALPHA

10.000

MACH

1.200

PARAMETRIC VALUES

BETA
SRBGAP

0.000
0.025

ORBINC

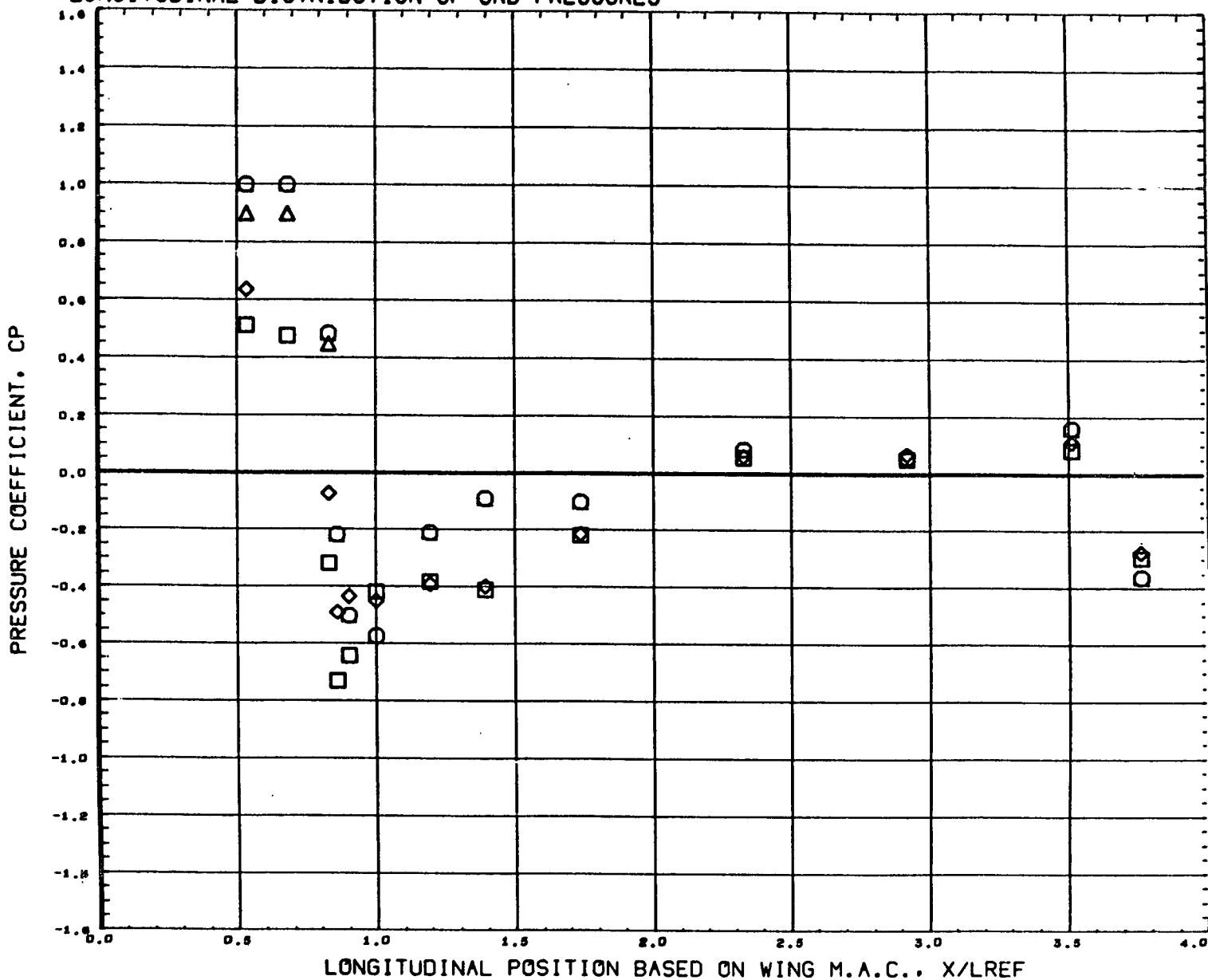
0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 493

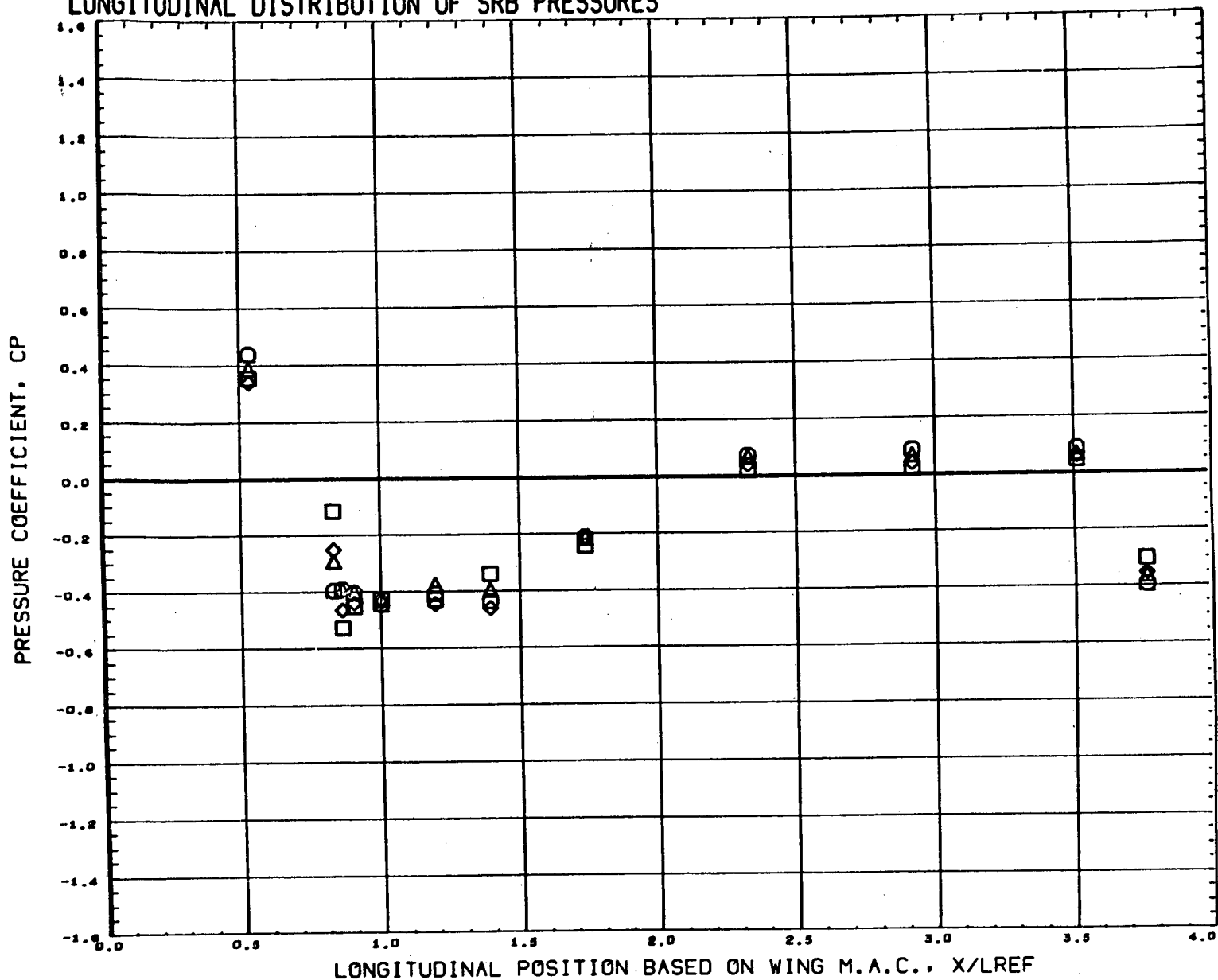
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	10.000	1.200	BETA	0.000	ORBINC 0.000
△	255.000			SRB GAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

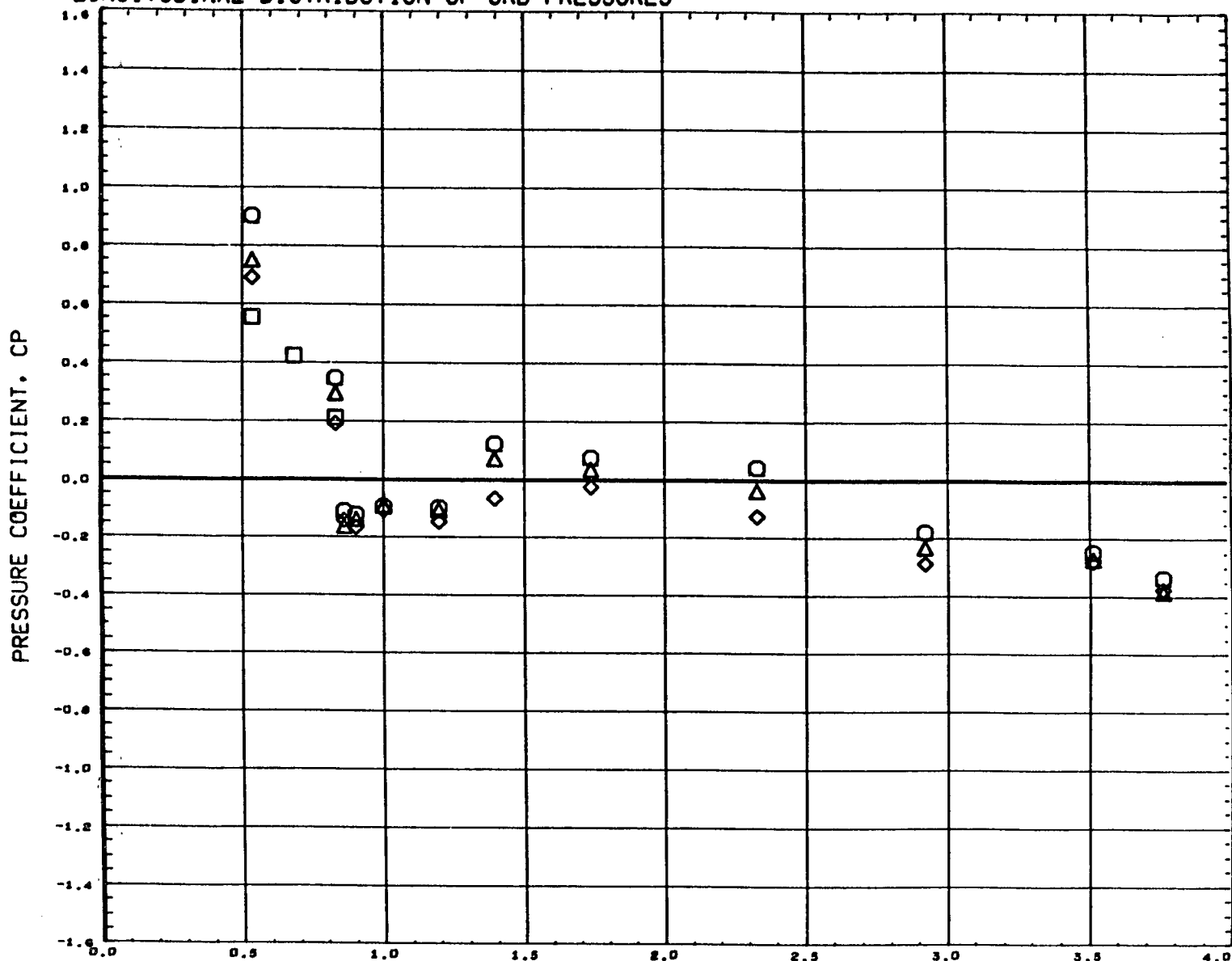
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300,000	10,000	1,200	BETA	0,000	ORBINC 0,000
△	315,000			SRBCAP	0,025	
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



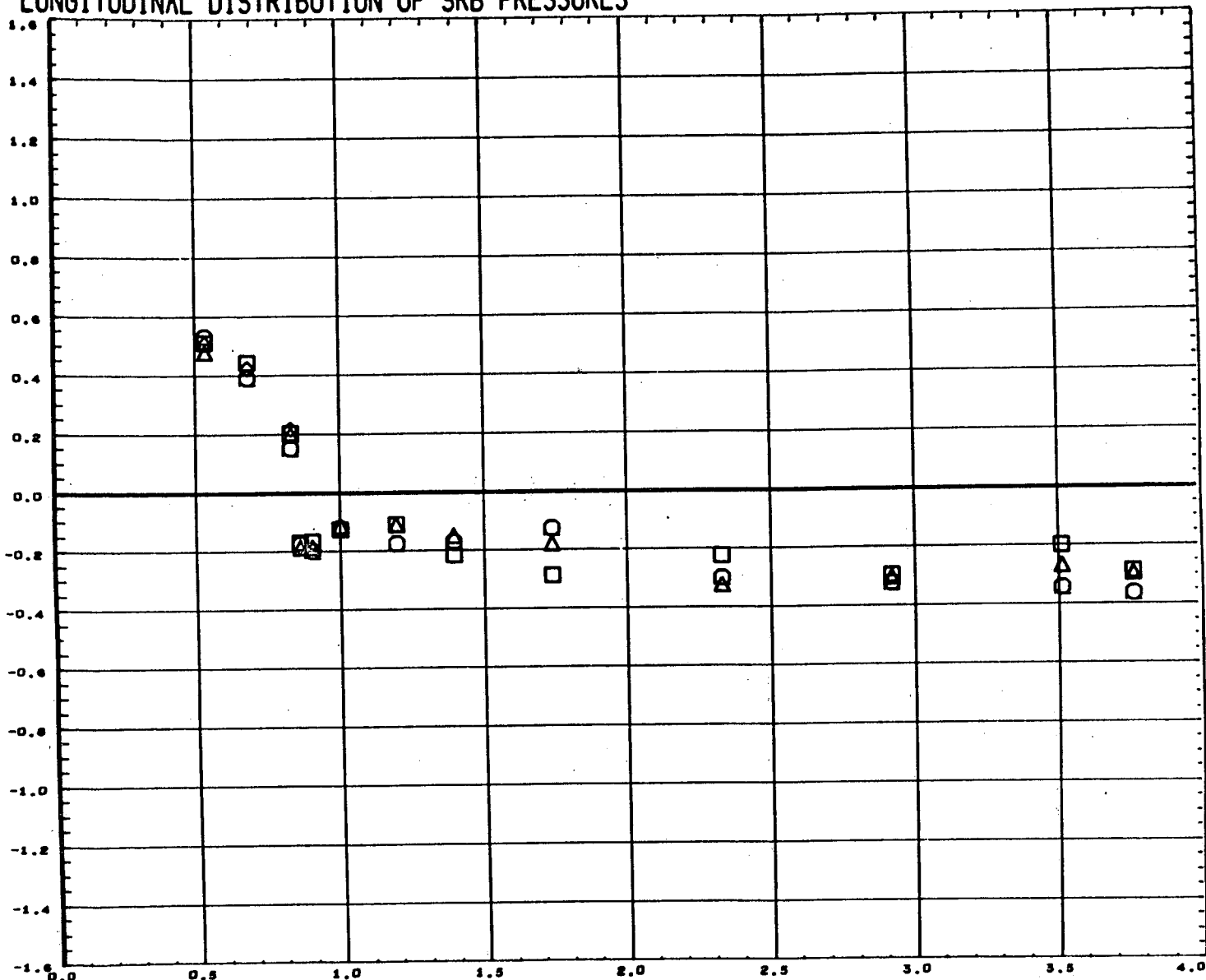
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	- 10.000	1.460	BETA	0.000	ORBINC 0.000
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

PRESSURE COEFFICIENT, CP



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

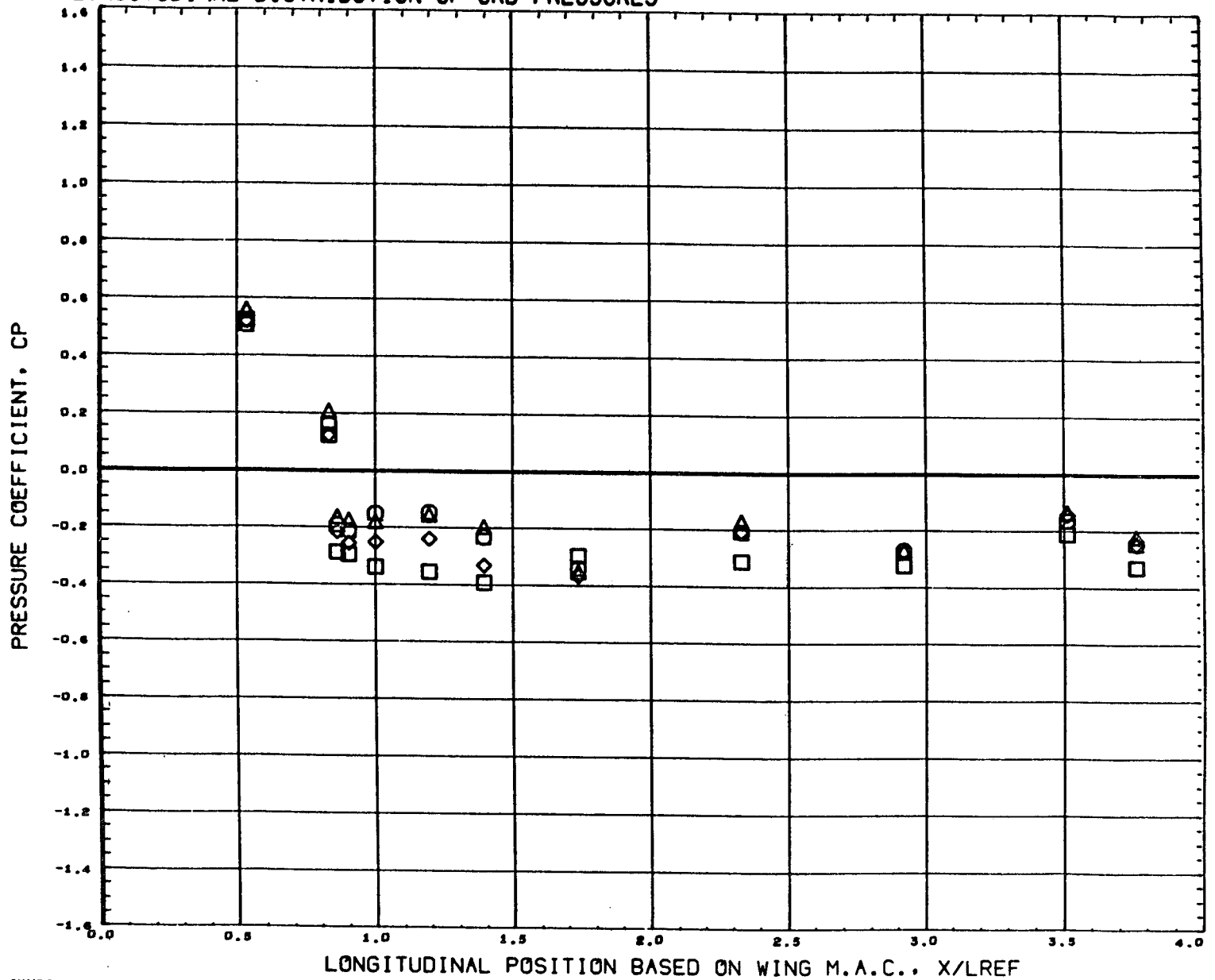
SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	0.000
○	60.000	- 10.000	1.460					
△	75.000							
◇	90.000							
□	105.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 497

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

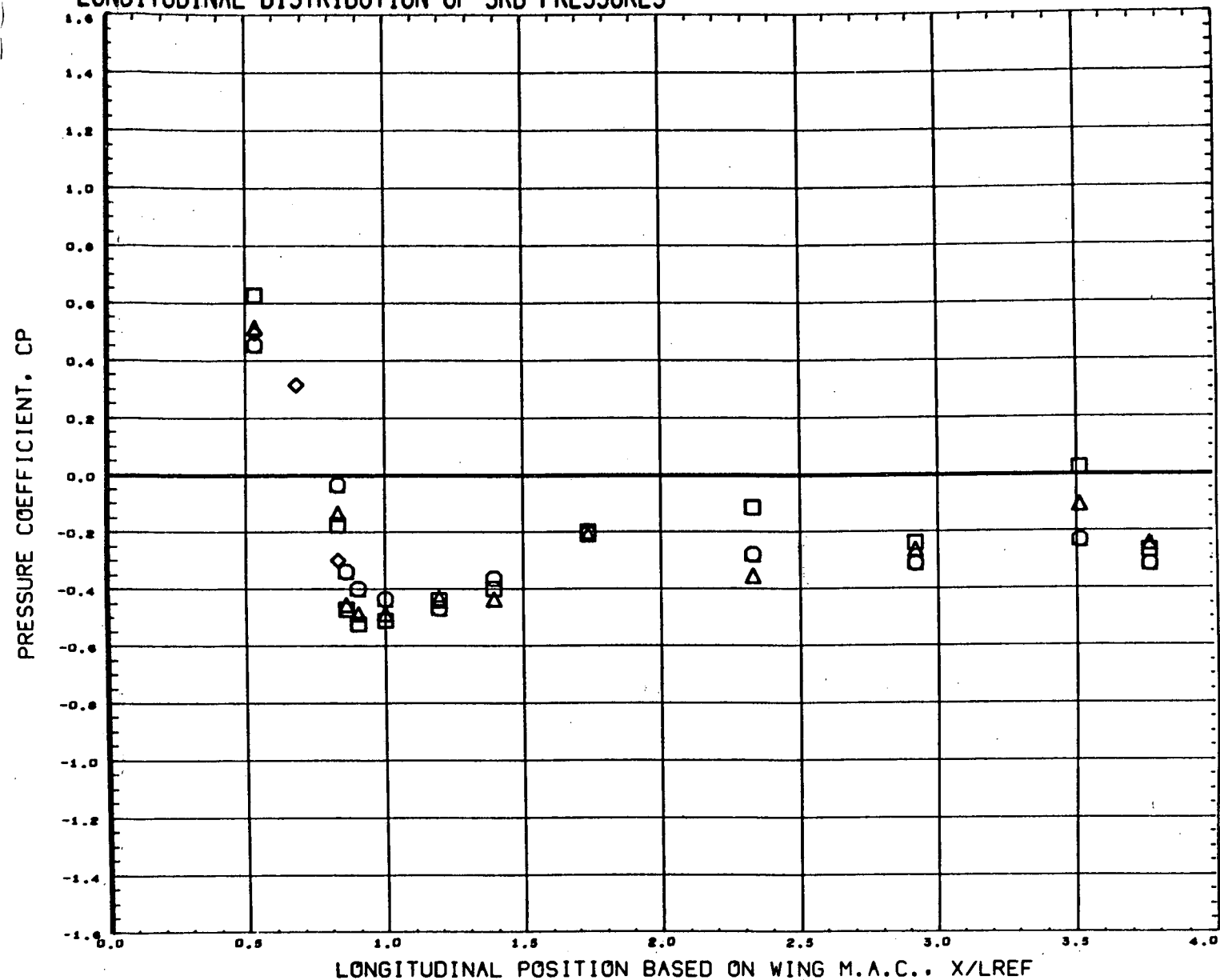


SYMBOL PHI ALPHA MACH
 ○ 120,000 - 10,000 1.460
 △ 135,000
 ◇ 150,000
 □ 165,000

PARAMETRIC VALUES
 BETA 0.000 ORBINC 0.000
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

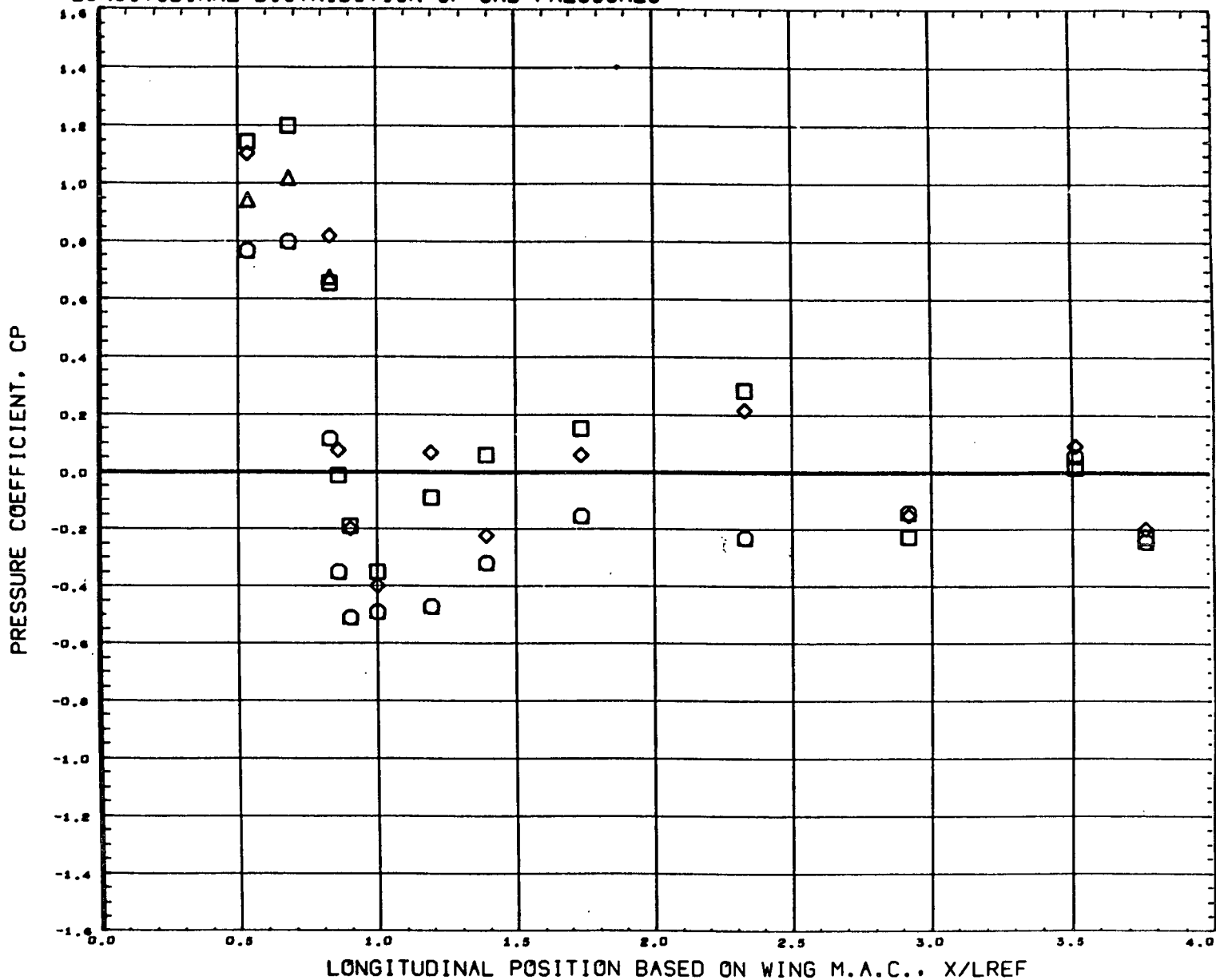


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	180.000	- 10.000	1.460	0.000	SRBGAP	0.025	ORBINC 0.000
△	195.000						
◇	210.000						
□	225.000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

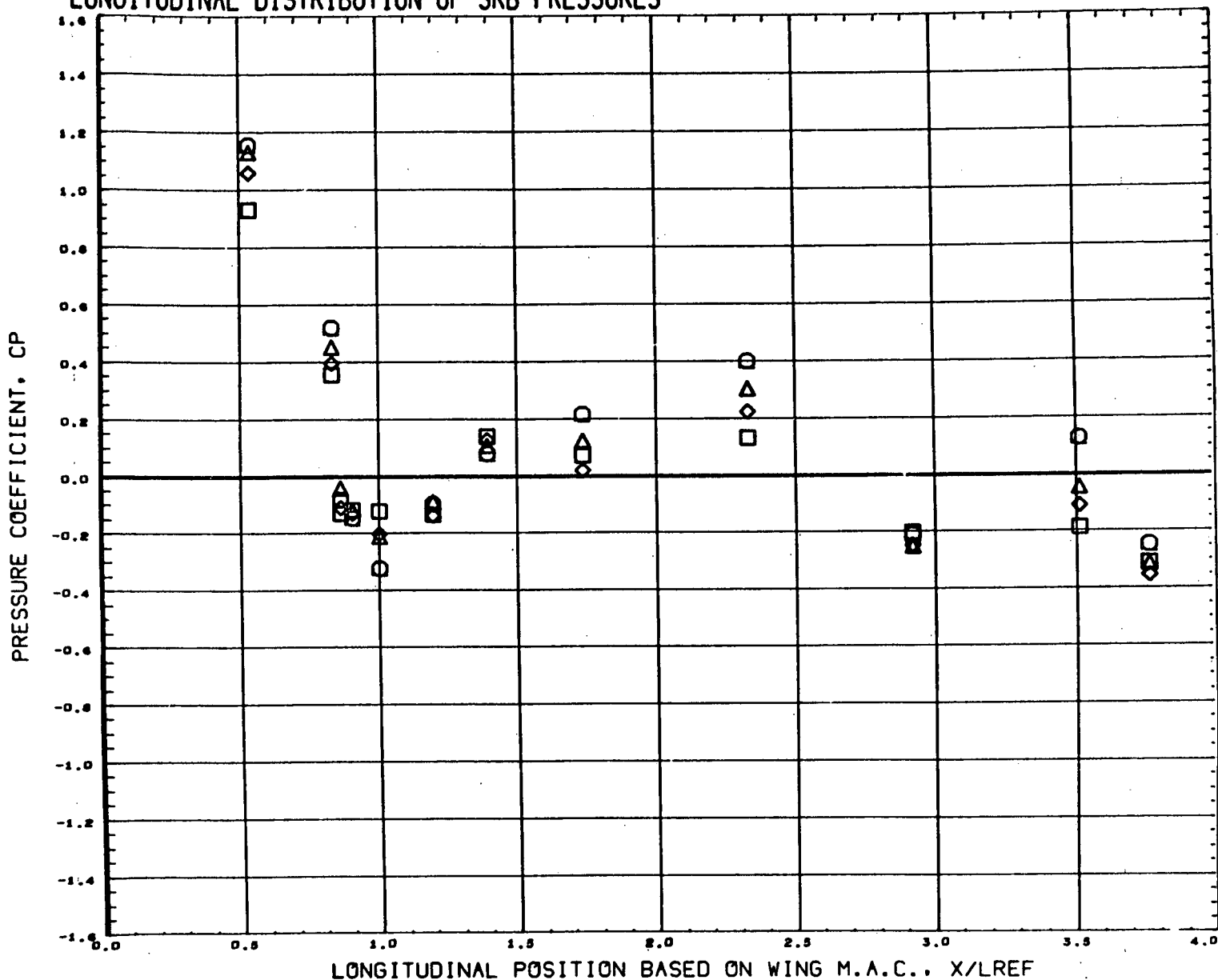
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240,000	- 10,000	1.460	BETA	0.000	ORBINC 0.000
△	255,000			SRBGAP	0.025	
◇	270,000					
□	285,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



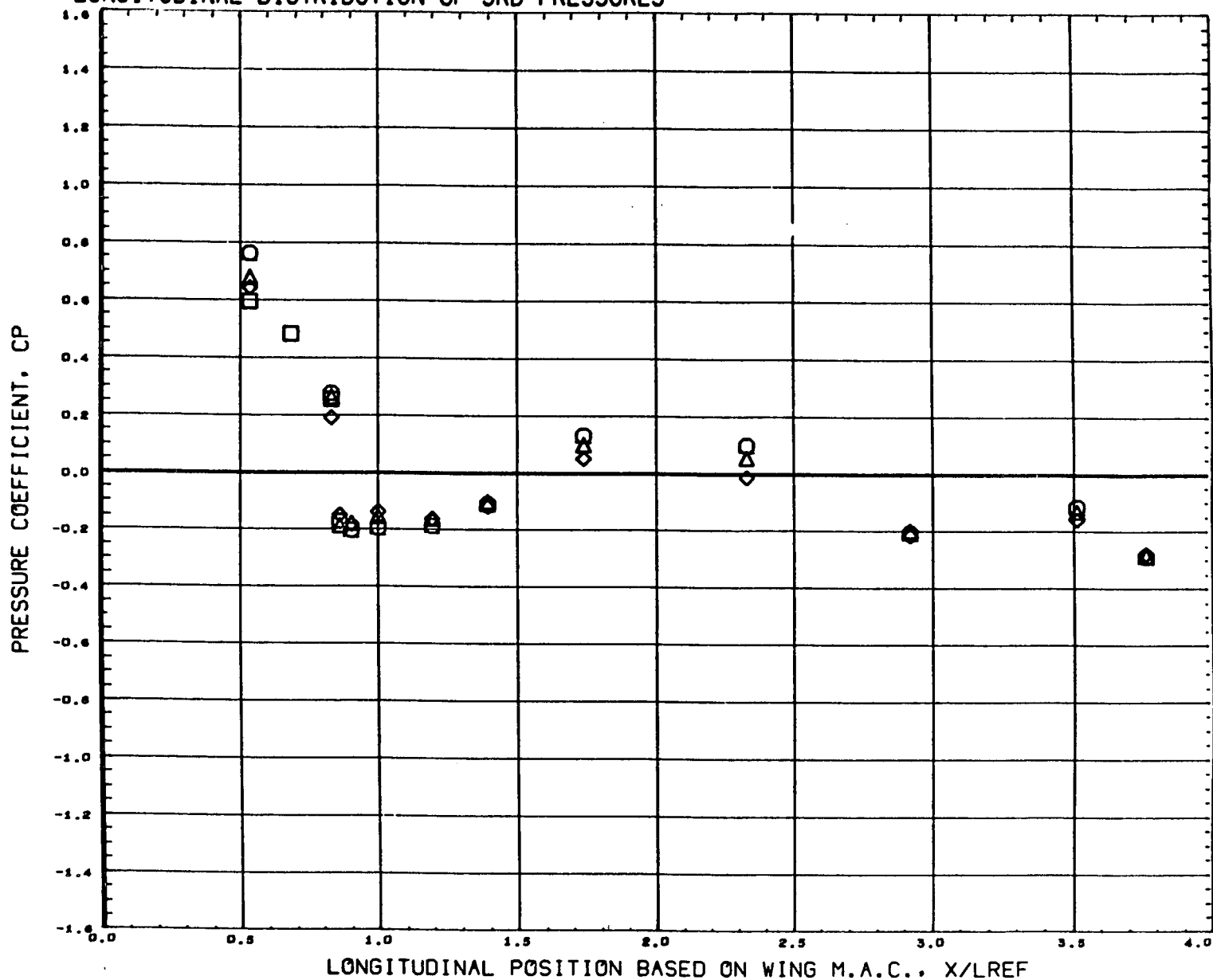
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	300,000	- 10,000	1.460
△	315,000		
◇	330,000		
□	345,000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=3.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

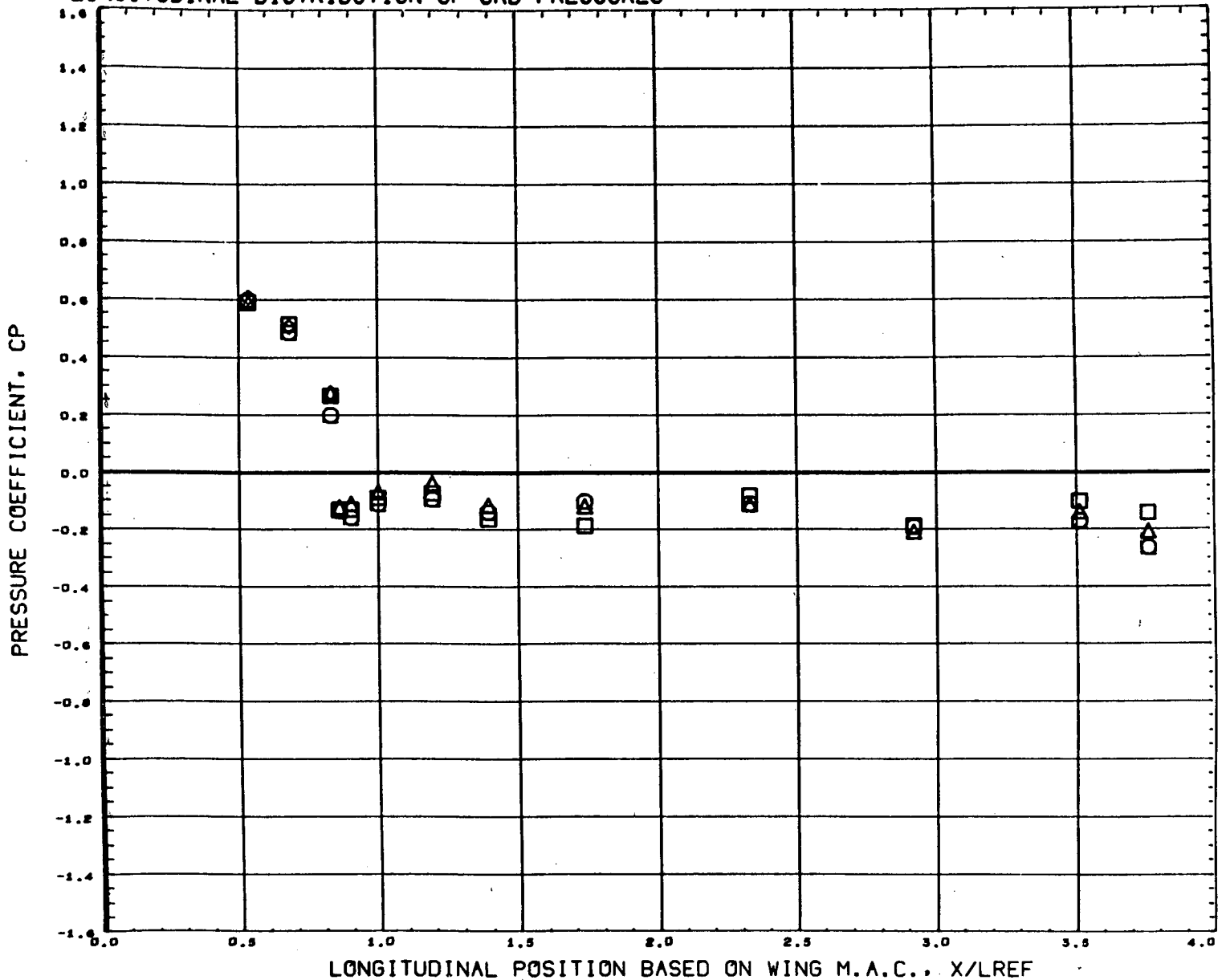


SYMBOL	PHI	ALPHA	MACH
○	0.000	- 4.000	1.460
△	15.000		
◇	30.000		
□	45.000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

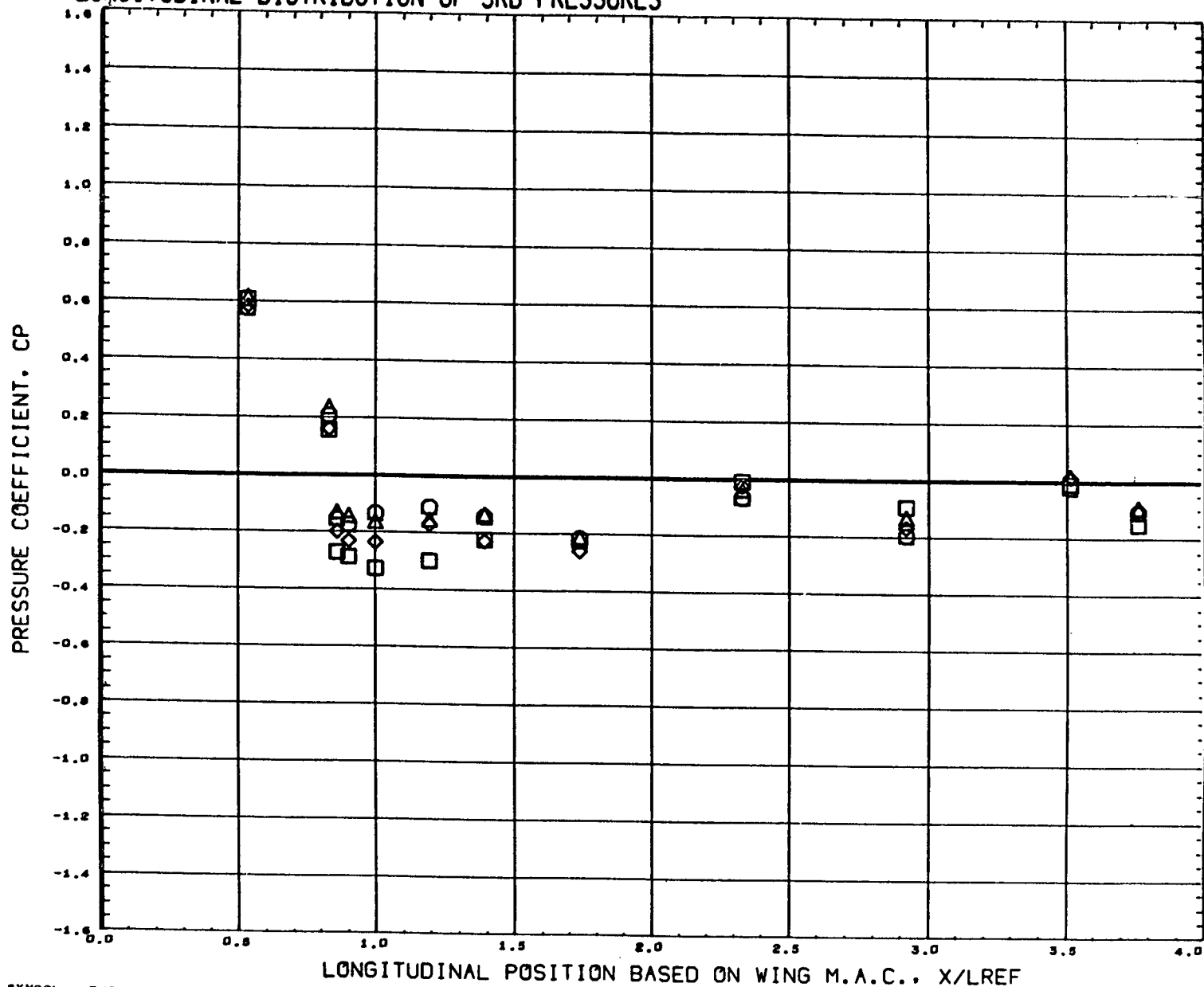
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL ○ △ ◇ □	PHI 60,000 75,000 90,000 105,000	ALPHA - 4.000	MACH 1.460	BETA 0.000	SRBGAP 0.025	PARAMETRIC VALUES ORBINC 0.000
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NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

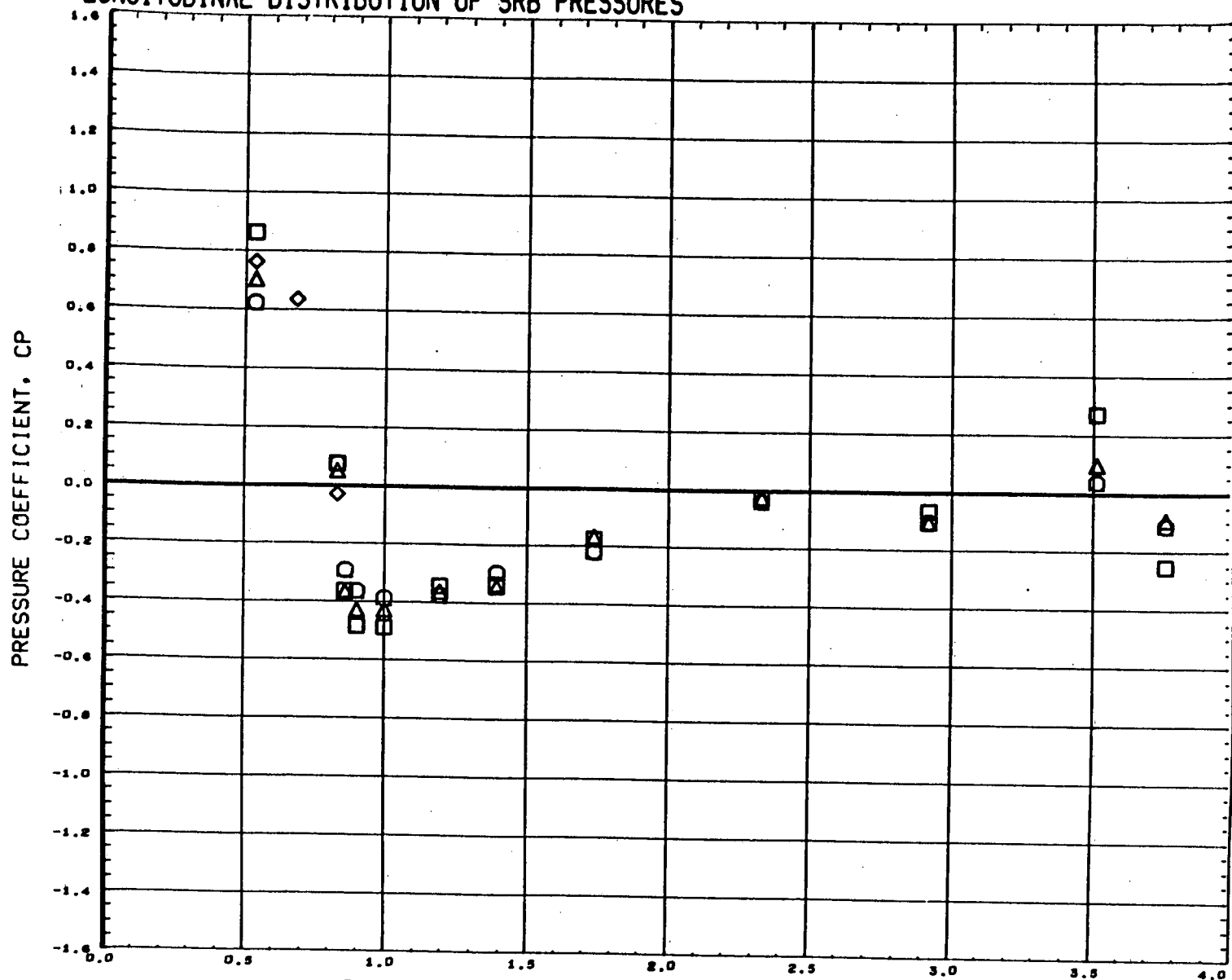


SYMBOL	PHI	ALPHA	MACH
○	120.000	- 4.000	1.460
△	135.000		
◇	150.000		
□	165.000		

PARAMETRIC VALUES	
BETA	0.000 ORBINC 0.000
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH
○	180,000	- 4,000	1.460
△	195,000		
◇	210,000		
□	225,000		

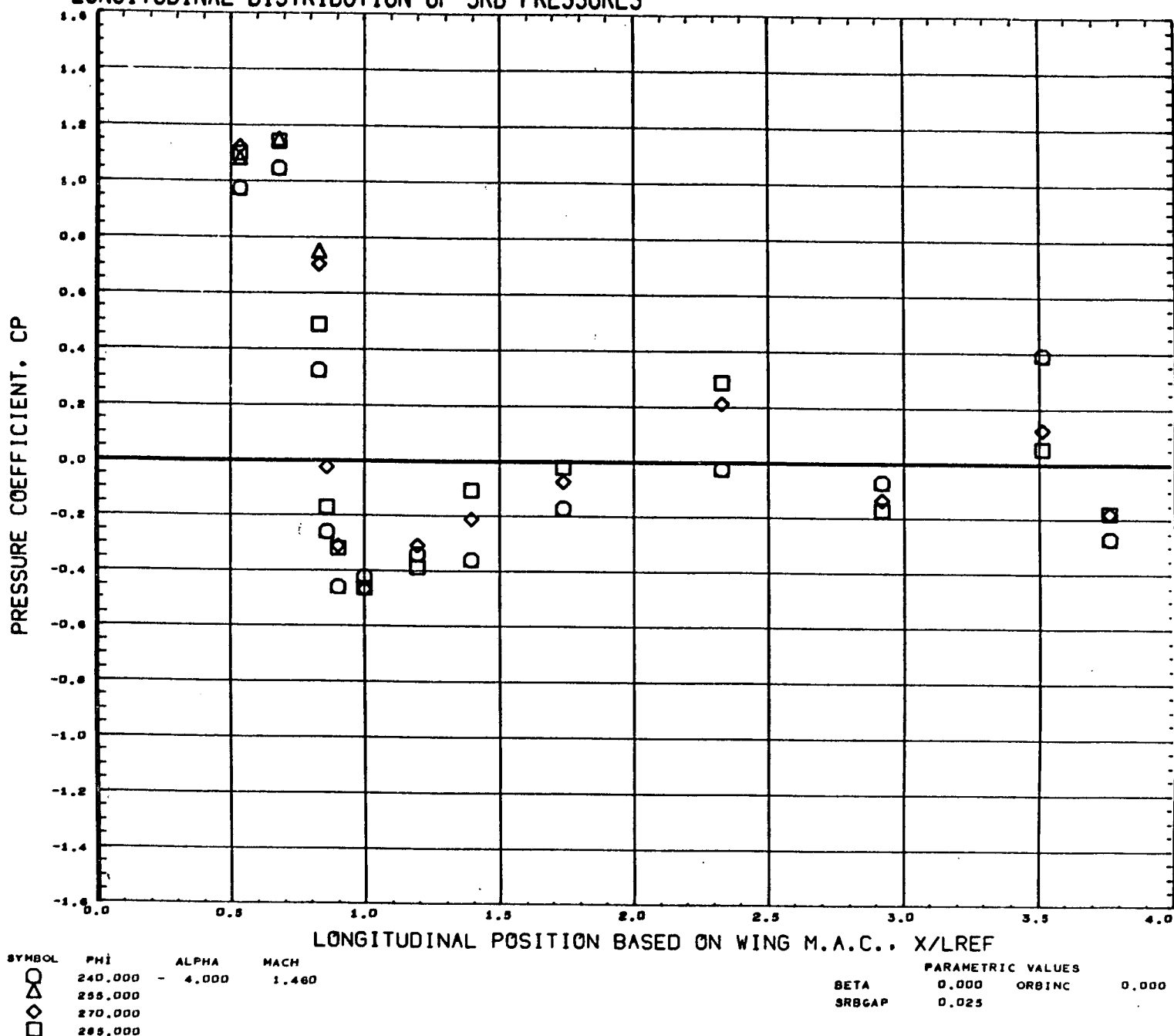
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBCAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 505

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

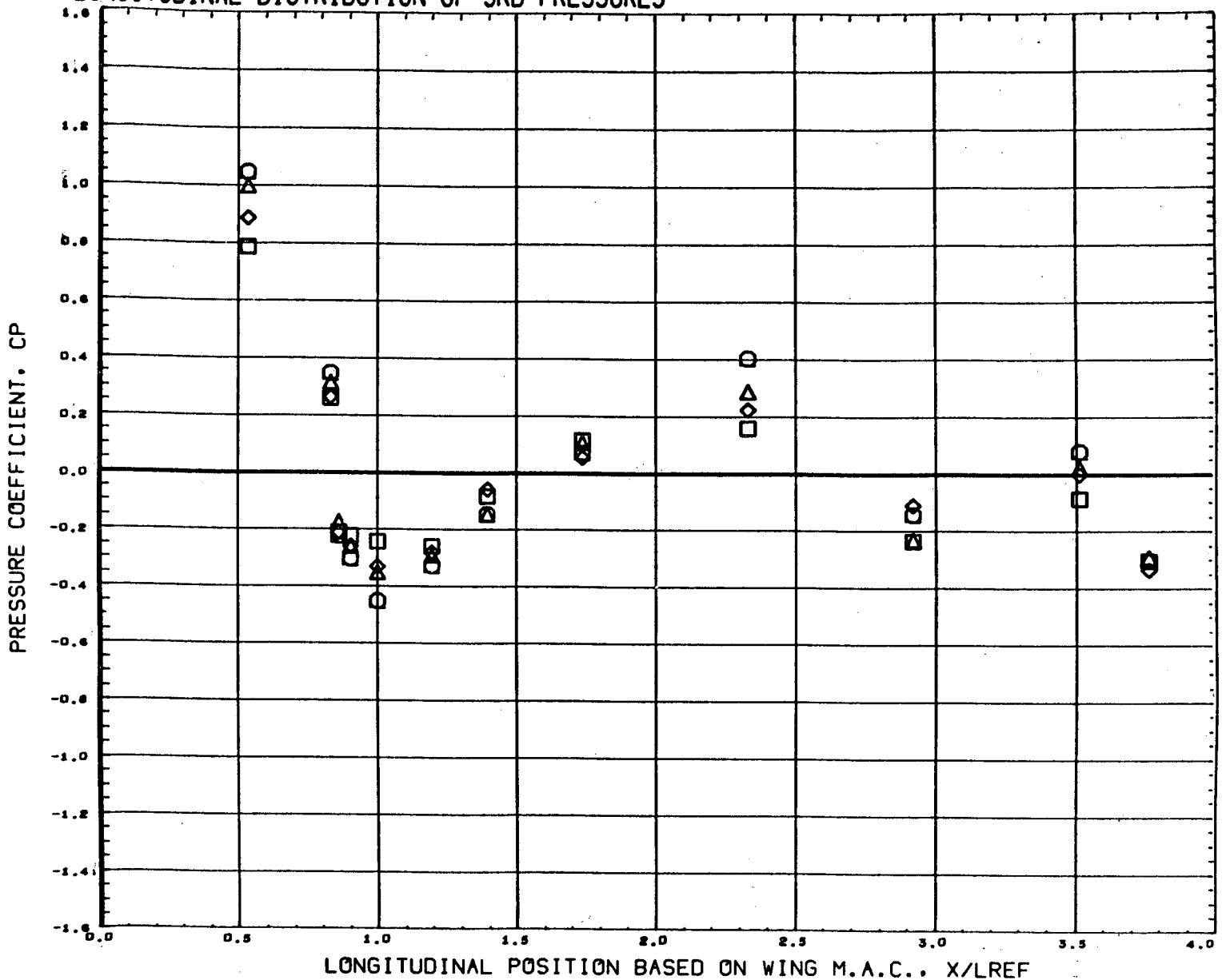


NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 506

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

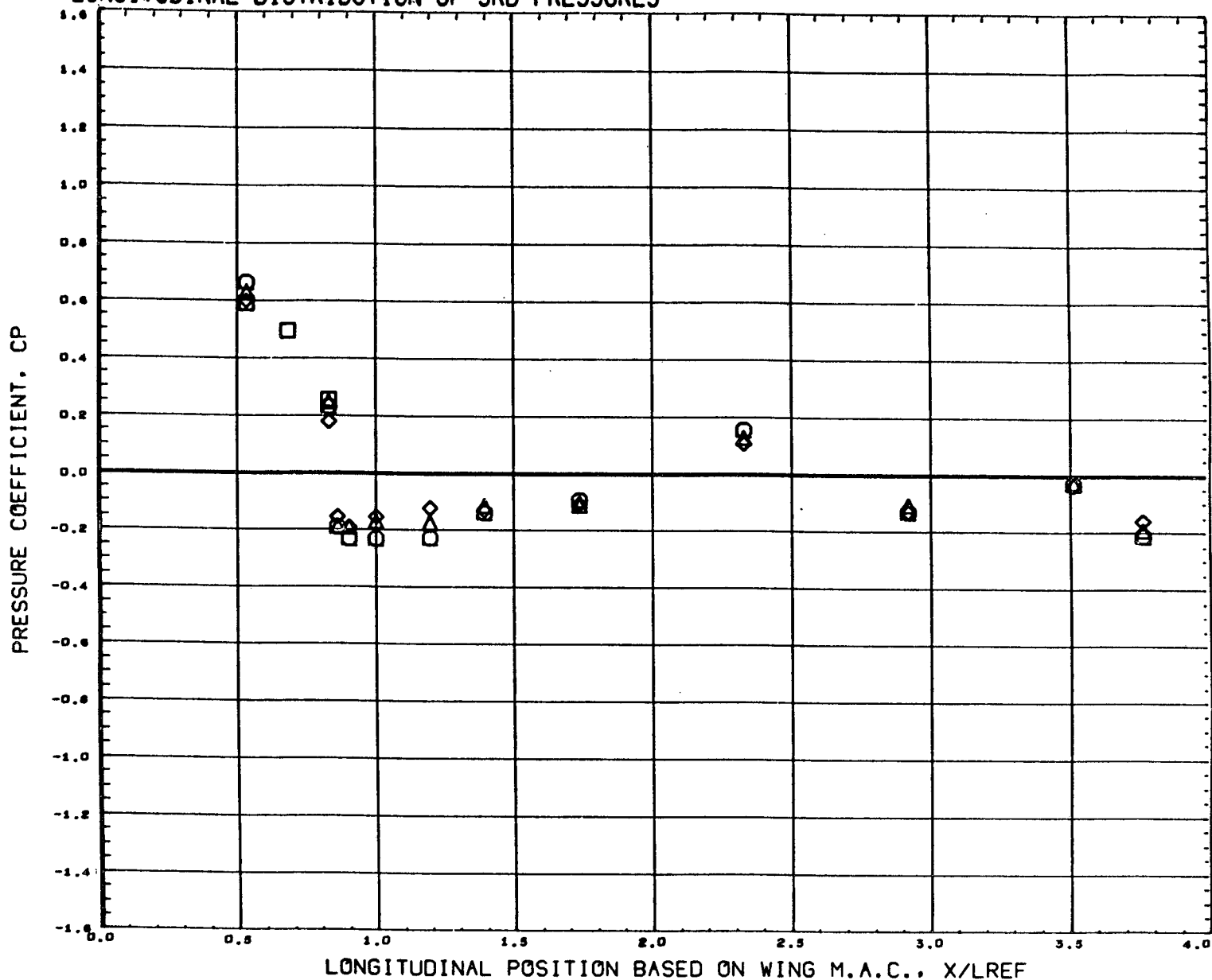


SYMBOL	PHI	ALPHA	MACH
○	300,000	- 4.000	1.460
△	315,000		
◇	330,000		
□	345,000		

PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

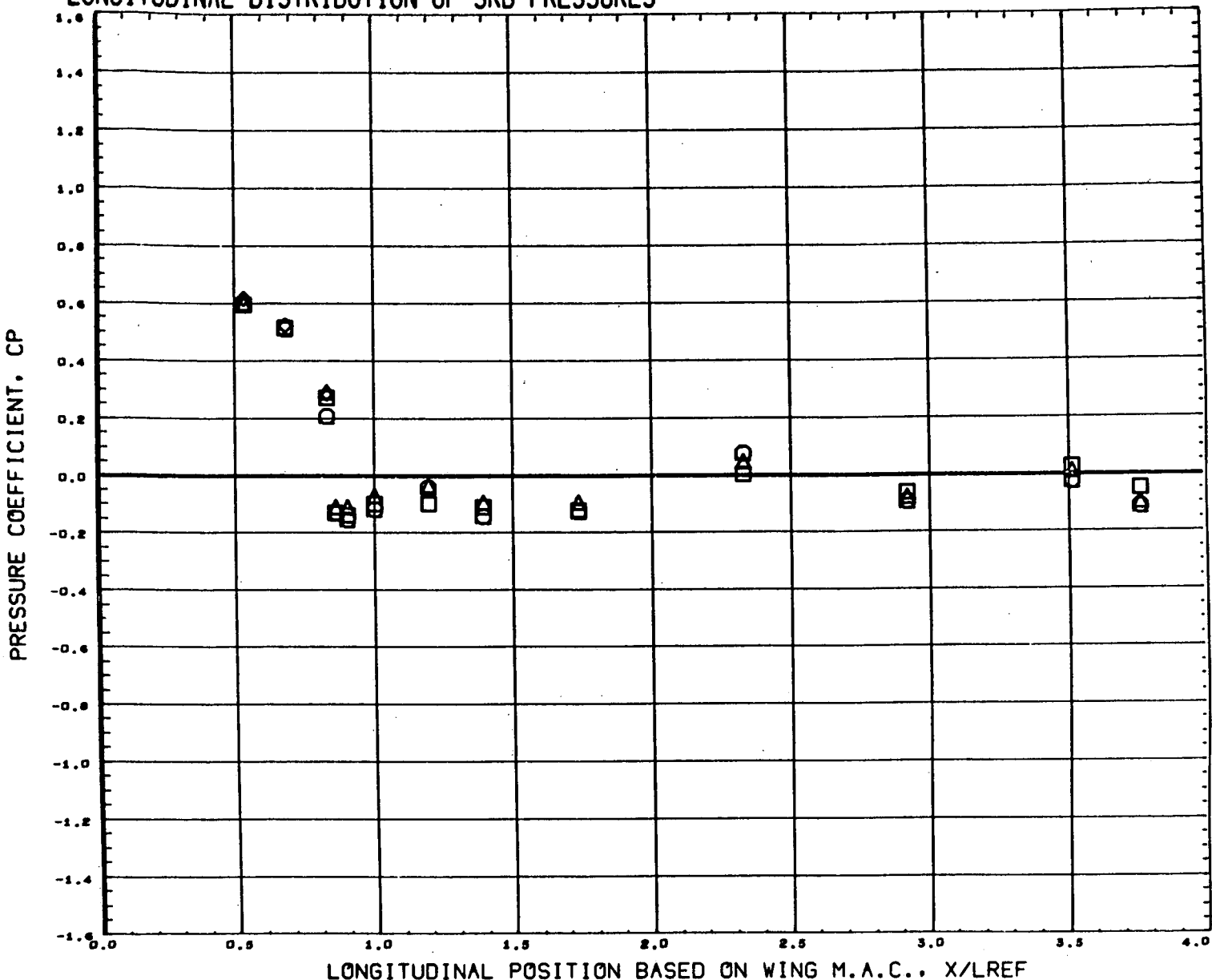


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	0.000	1.460	BETA	0.000	ORBINC 0.000
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

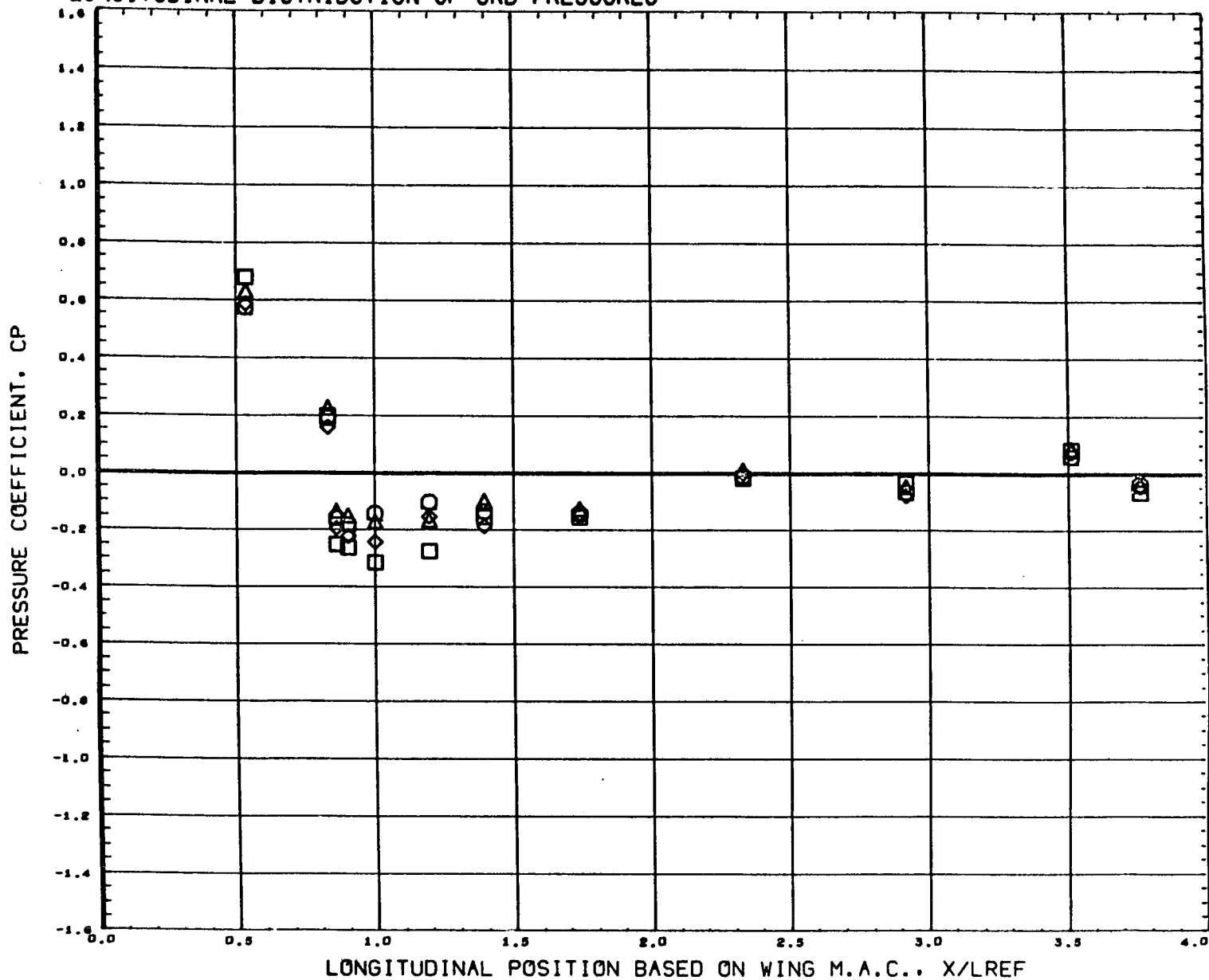


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	0.000
○	60.000	0.000	1.460	0.000	0.025			
△	75.000							
◇	90.000							
□	105.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

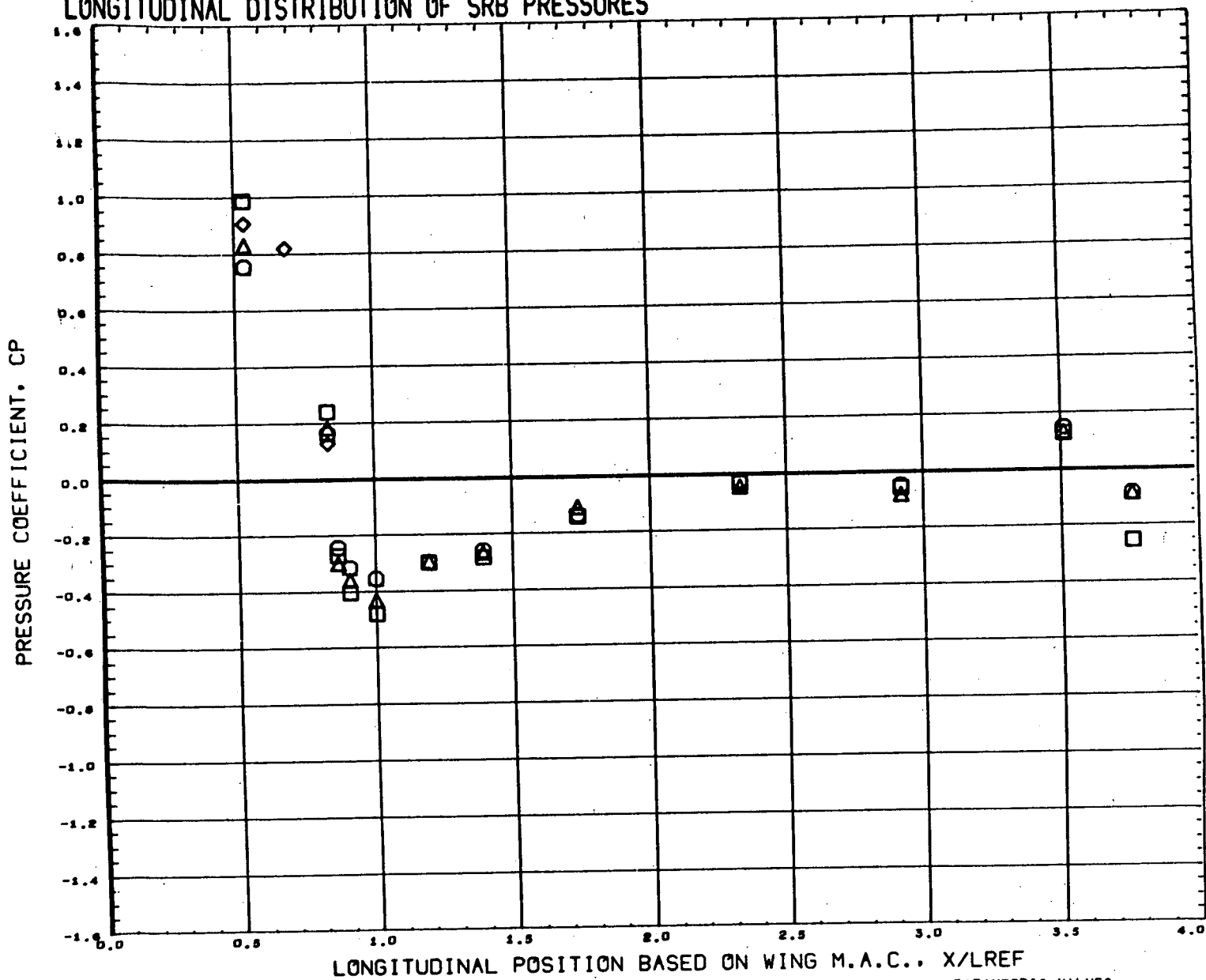
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120,000	0.000	1.460	BETA	0.000	ORBINC 0.000
△	135,000			SRBCAP	0.025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



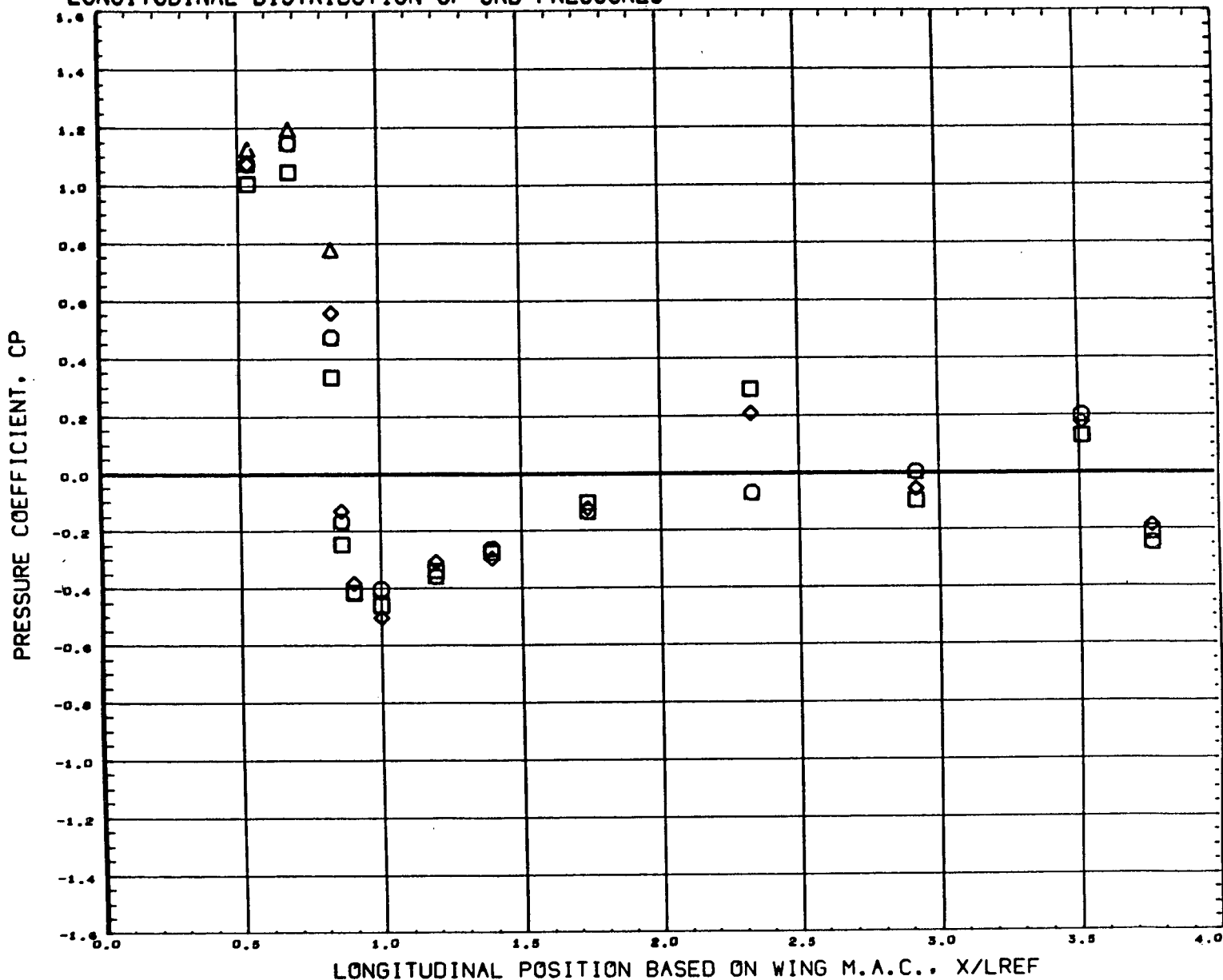
SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	0.000
○	180.000	0.000	1.460	0.000	0.025			
△	195.000							
◇	210.000							
□	225.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R702SM)

PAGE 511

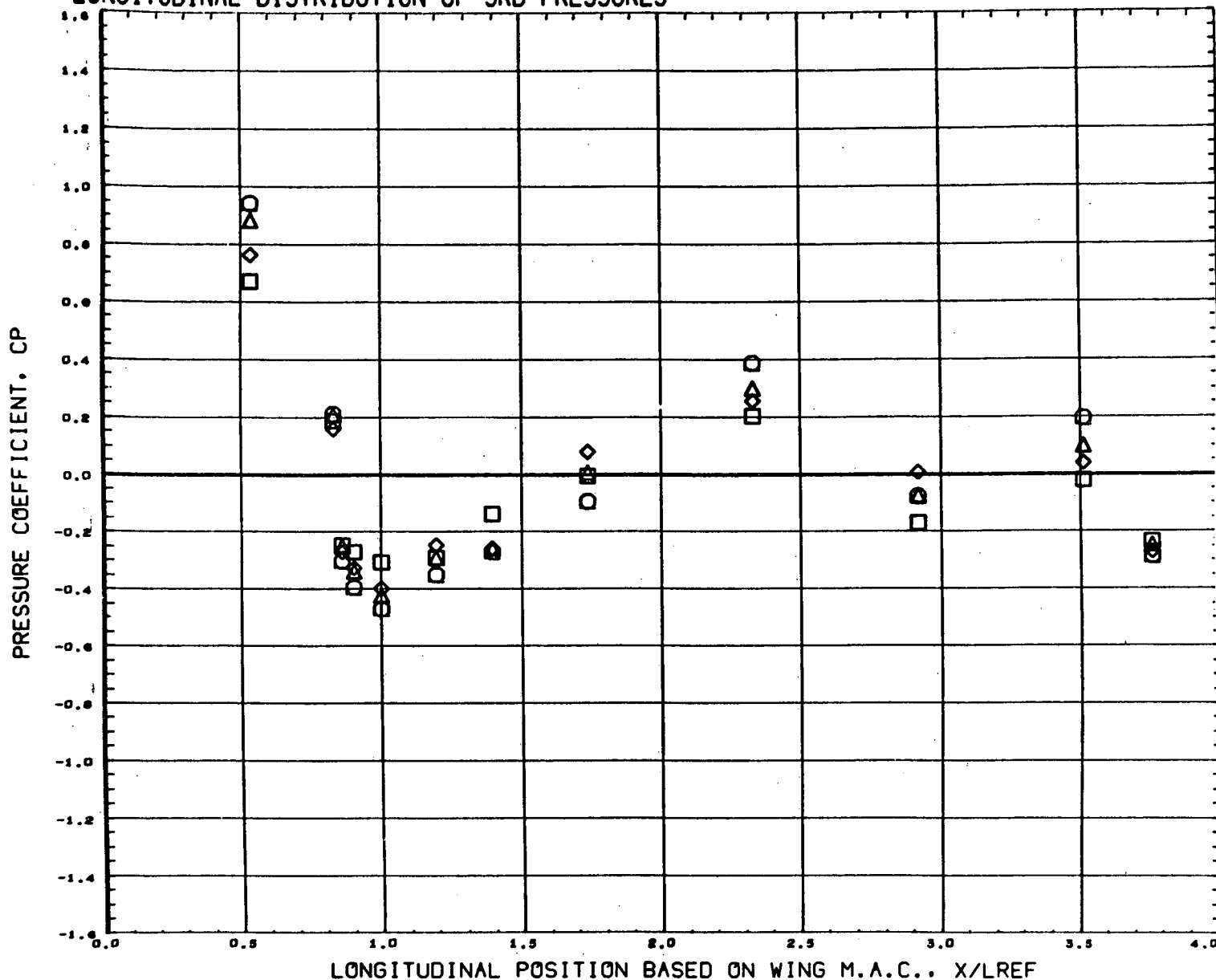
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	0.000	1.460	BETA	0.000	ORBINC 0.000
△	255.000			SRBGAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

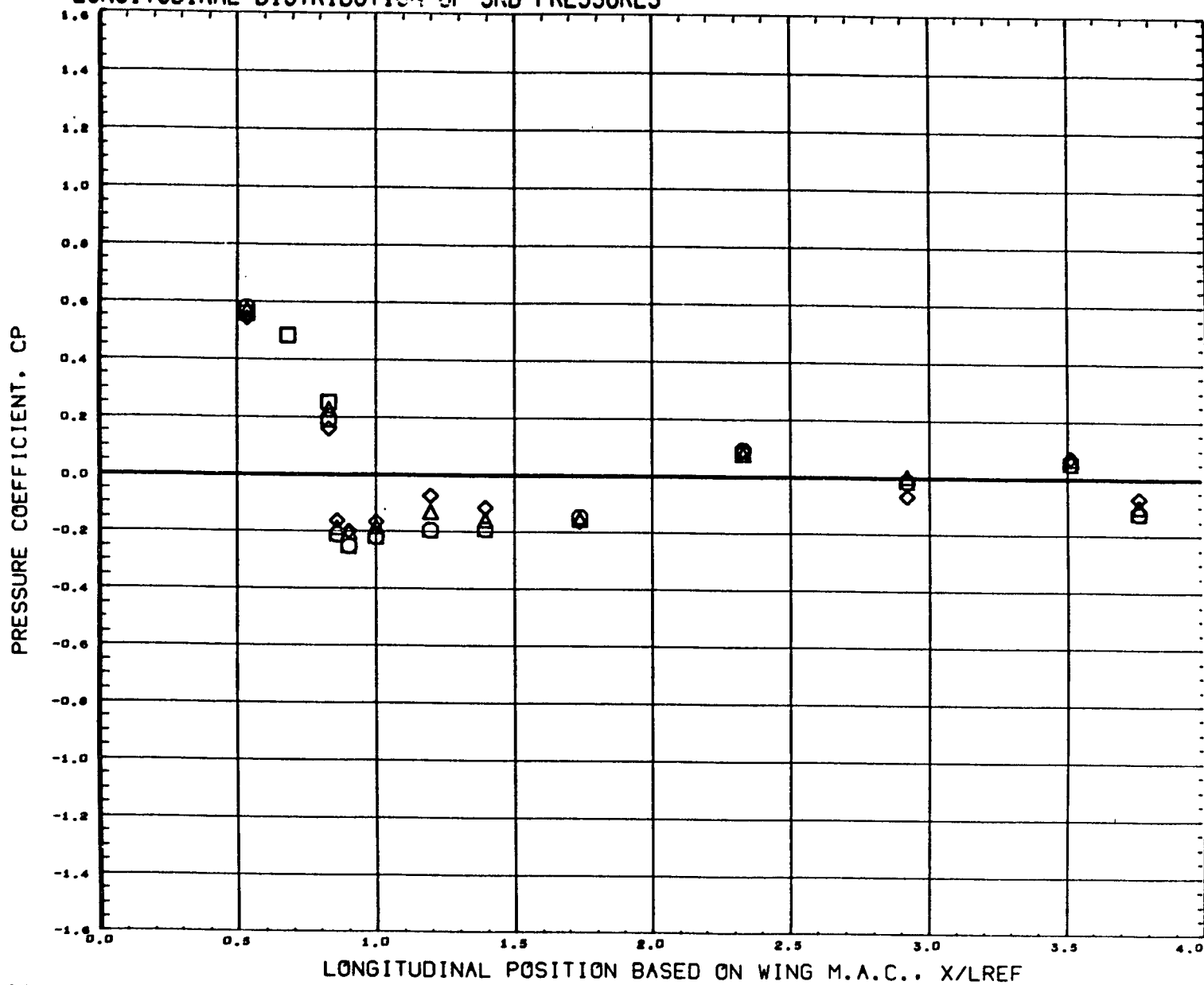
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBCAP	PARAMETRIC VALUES	ORBINC
○	300.000	0.000	1.460	0.000	0.025		0.000
△	315.000						
◇	330.000						
□	345.000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

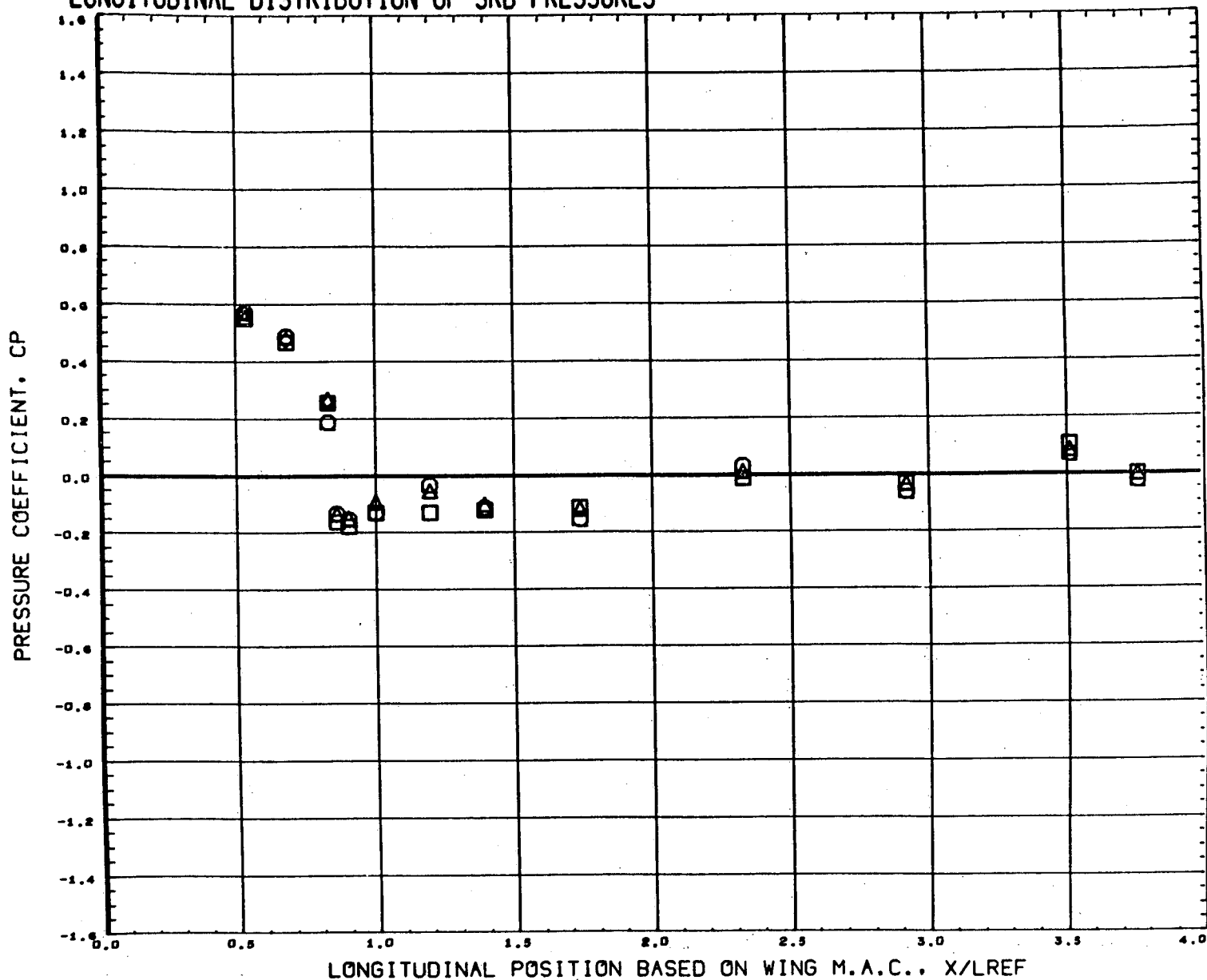


SYMBOL	PARAMETRIC VALUES		
	PHI	ALPHA	MACH
□	0.000	4.000	1.460
△	15.000		
◇	30.000		
○	45.000		

BETA	0.000	ORBINC	0.000
SRBCAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

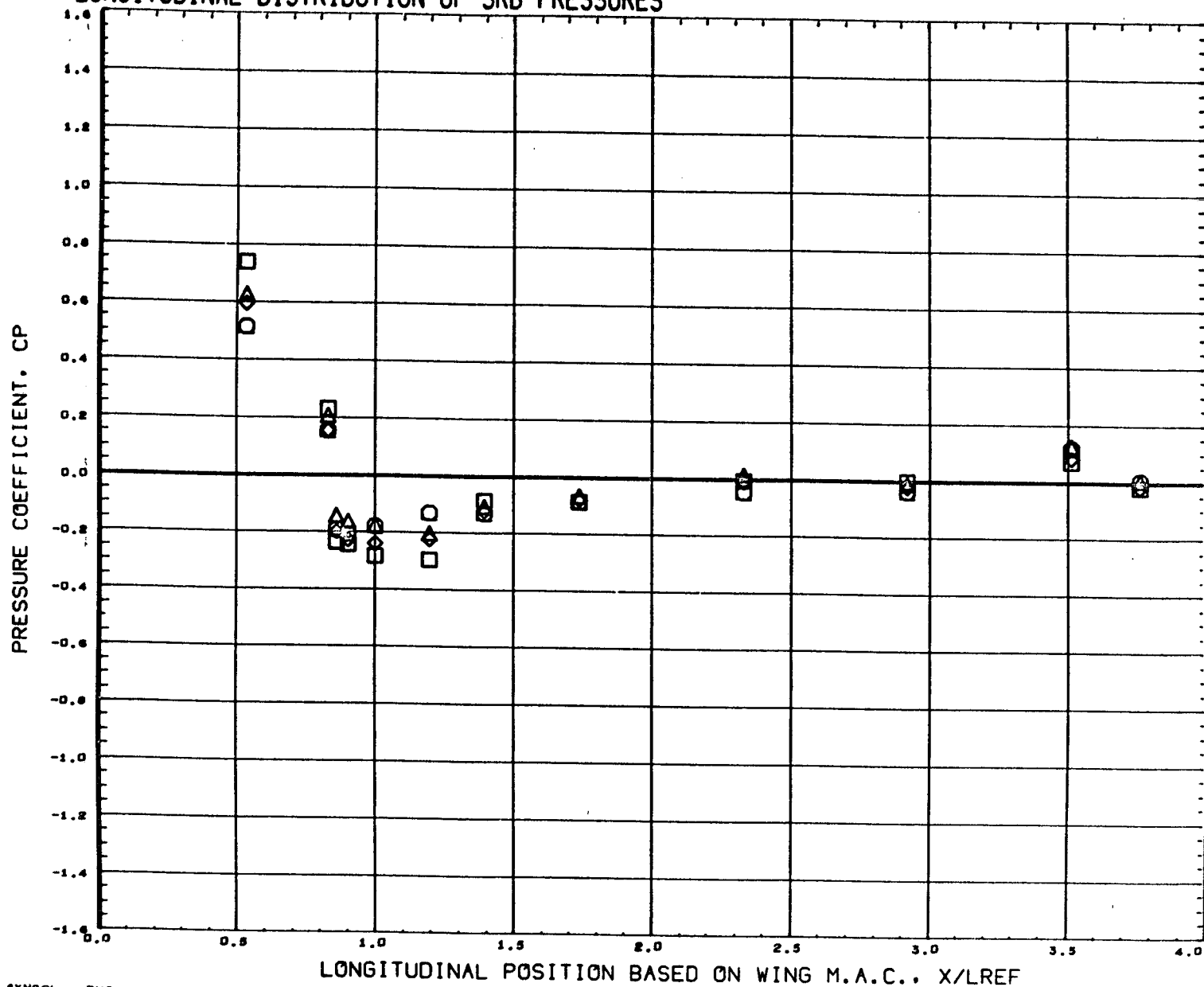
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	
○	60,000	4.000	1.460	0.000	0.025	ORBINC	0.000
△	75,000						
◇	90,000						
□	105,000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

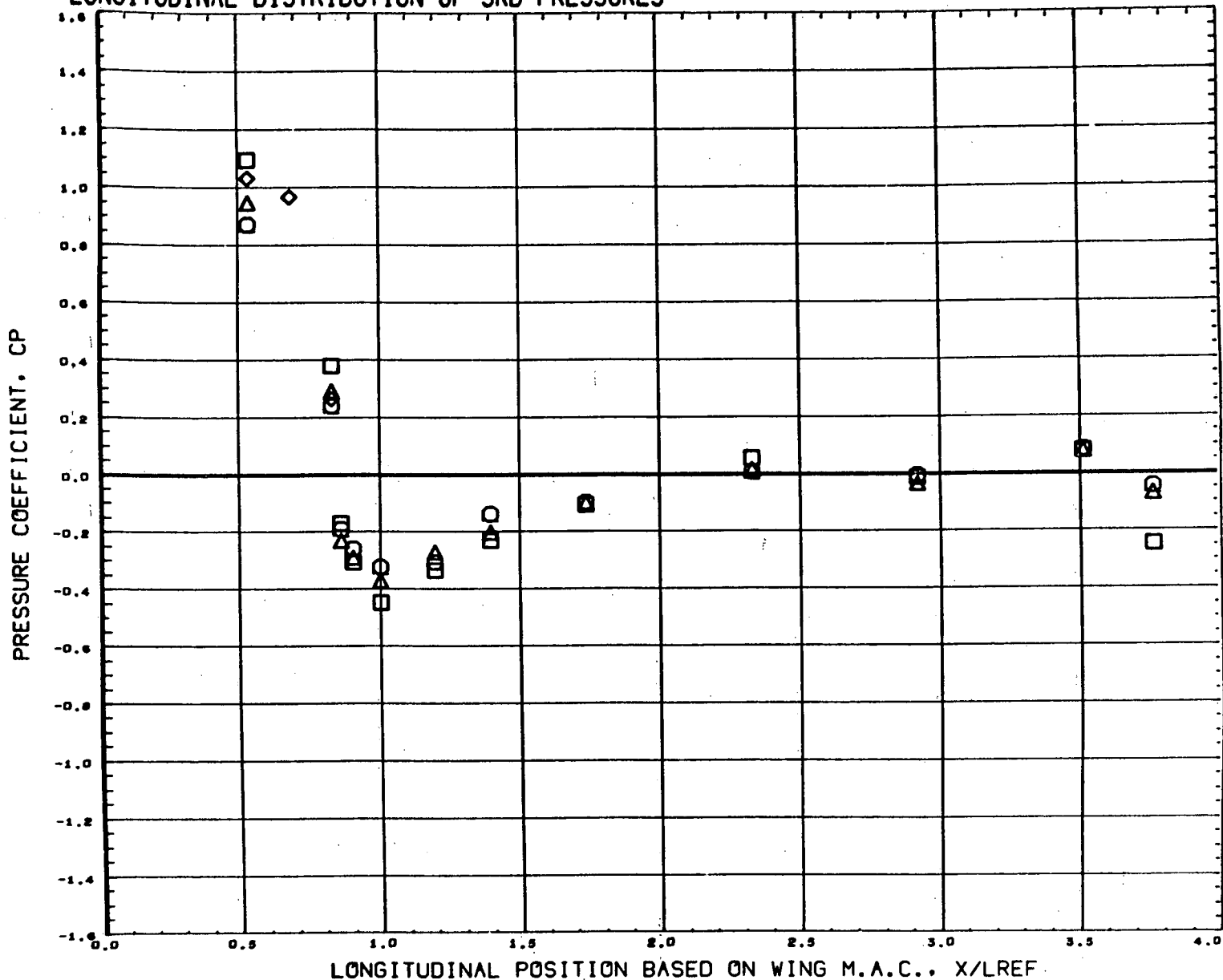
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120,000	4.000	1.460	BETA	0.000	ORBINC 0.000
△	135,000			SRBCAP	0.025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

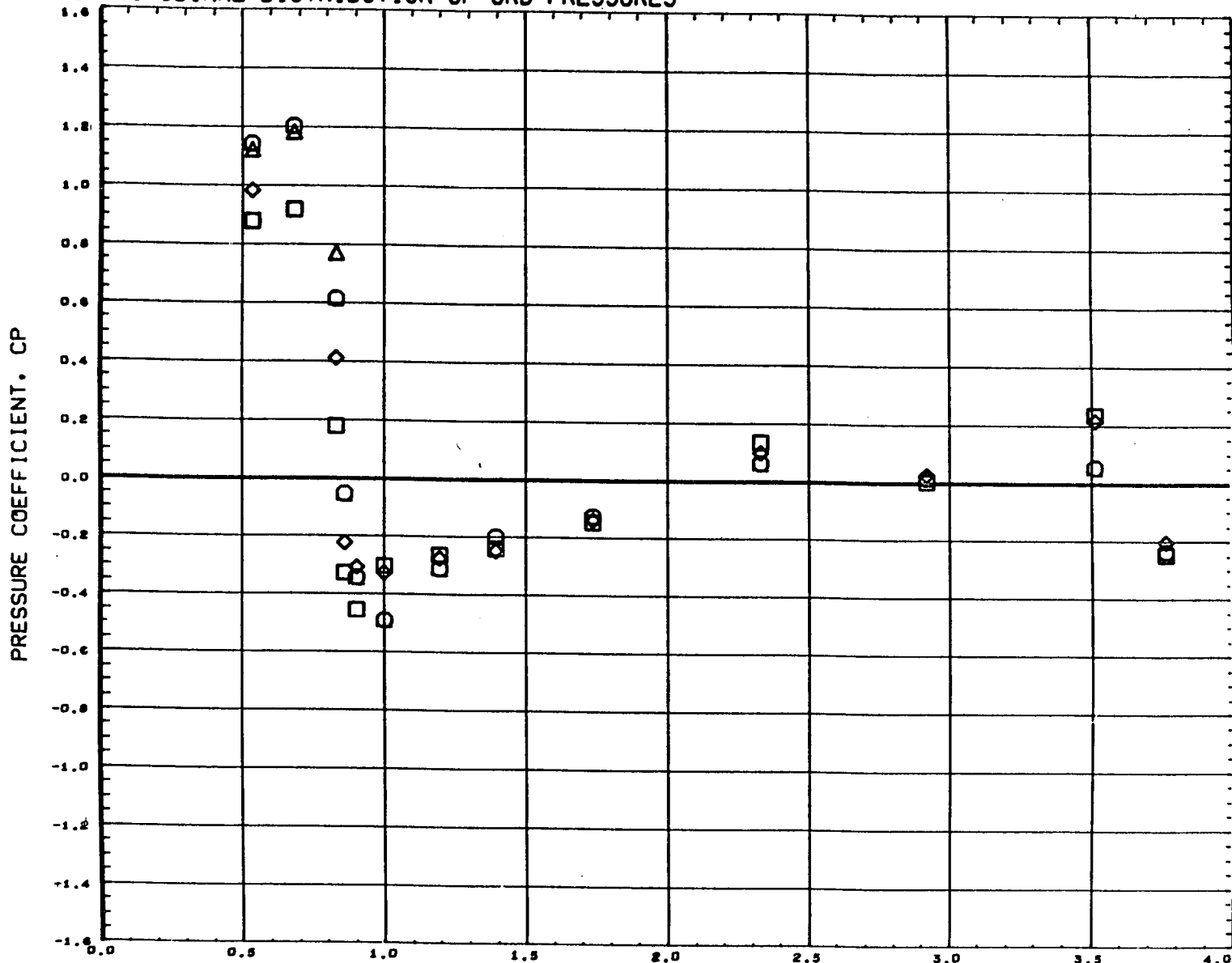
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBNIC	0.000
○	180,000	4.000	1.460			0.000		
△	195,000					0.025		
◇	210,000							
□	225,000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240,000	4.000	1.460	BETA	0.000	ORBINC 0.000
△	255,000			SRBGAP	0.025	
◇	270,000					
□	285,000					

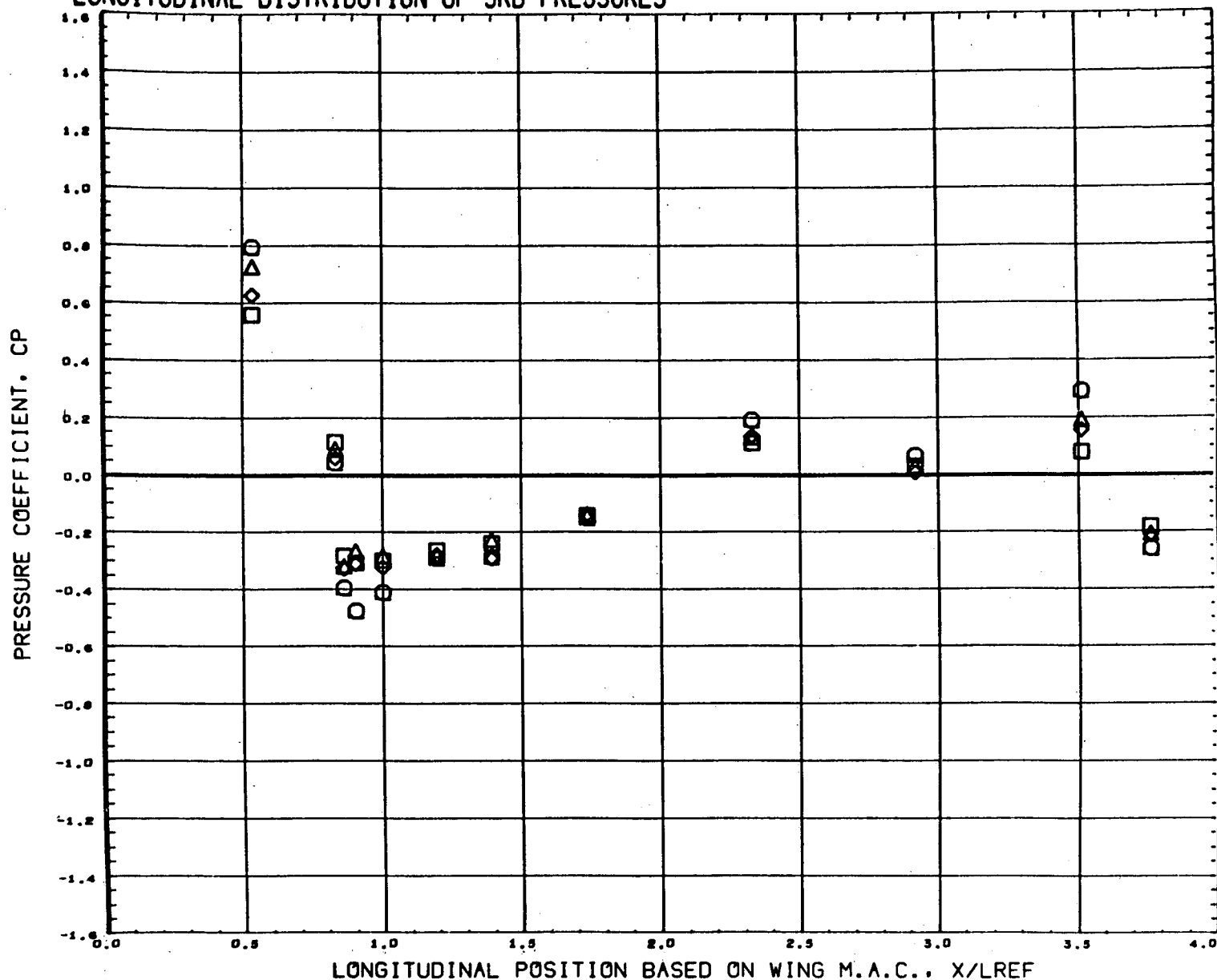
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

PAGE 518

F

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

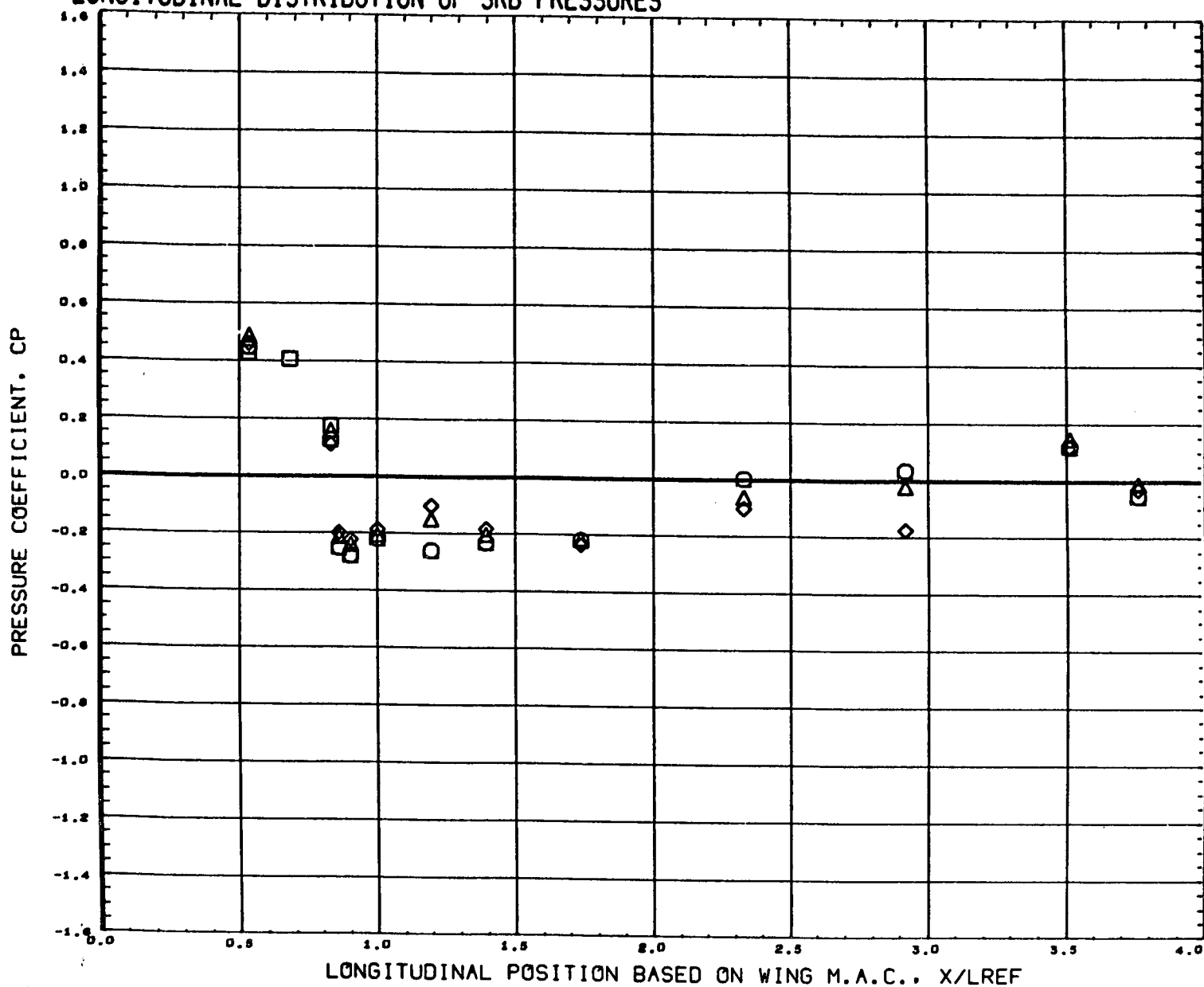


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	300,000	4,000	1.460	BETA	0.000	ORBINC 0.000
△	315,000			SRBCAP	0.025	
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

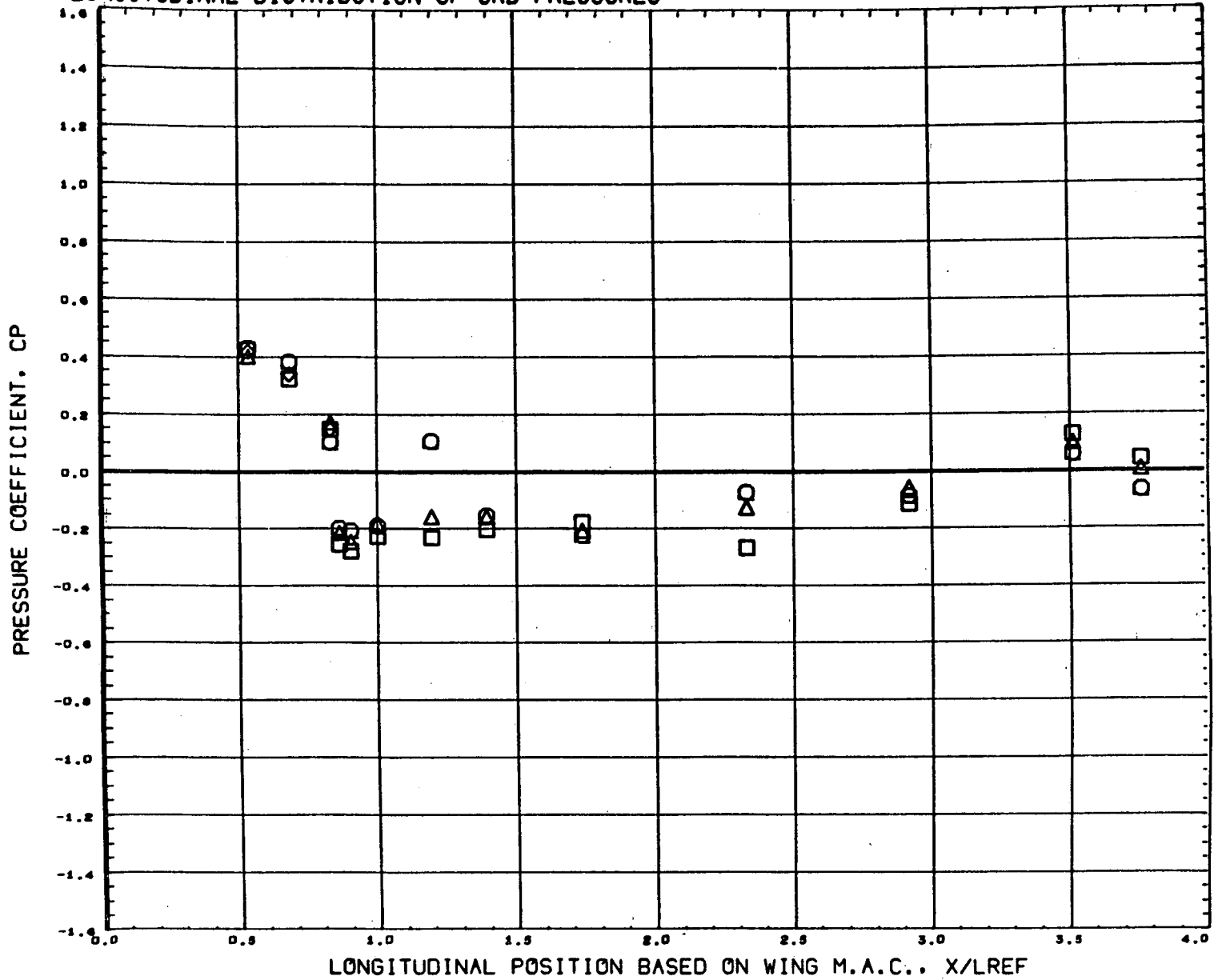
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	0.000	10.000	1.460	BETA	0.000	ORBINC 0.000
△	15.000			SRBCAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

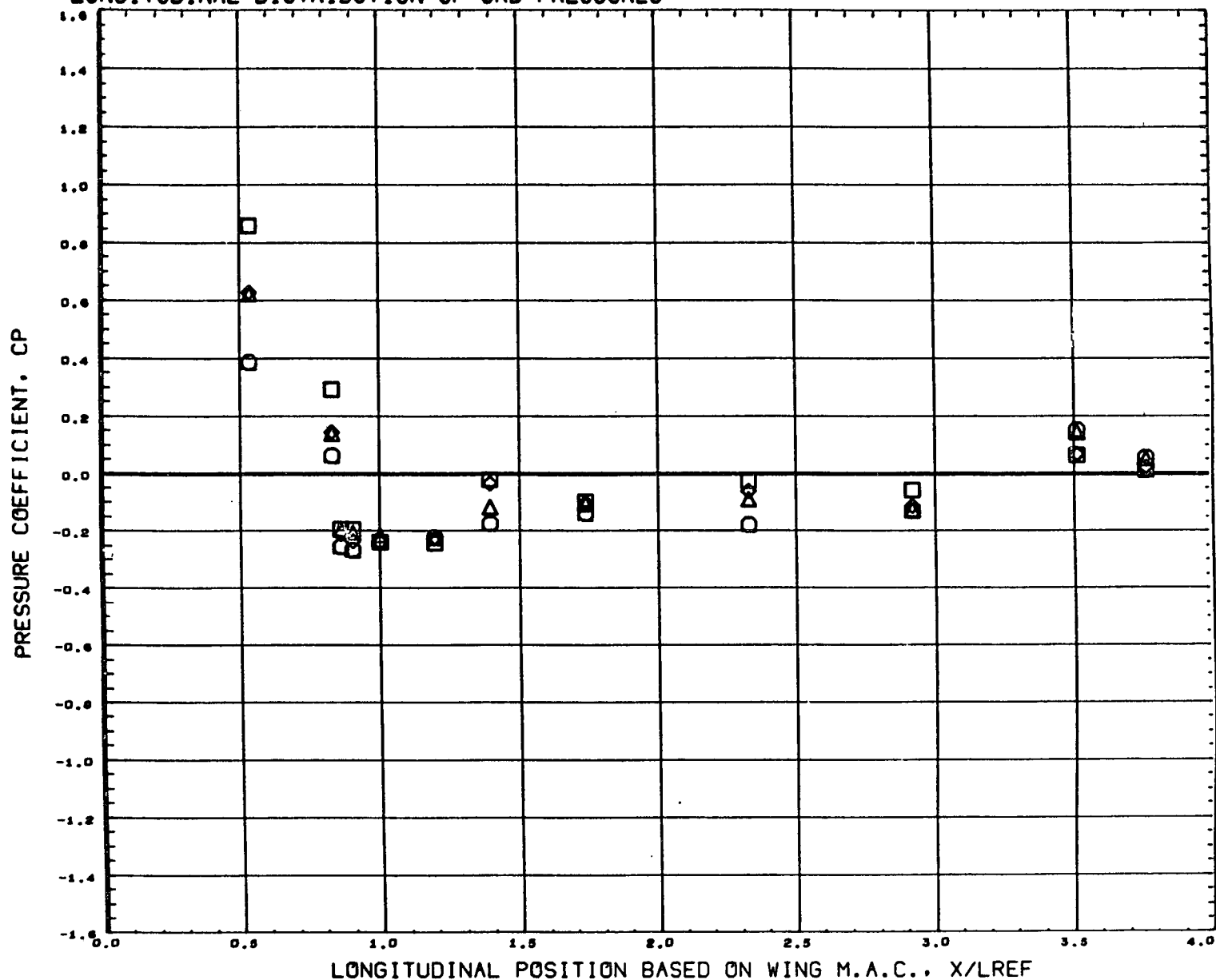
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	60.000	10.000	1.460	BETA	0.000	ORBINC 0.000
△	75.000			SRBGAP	0.025	
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

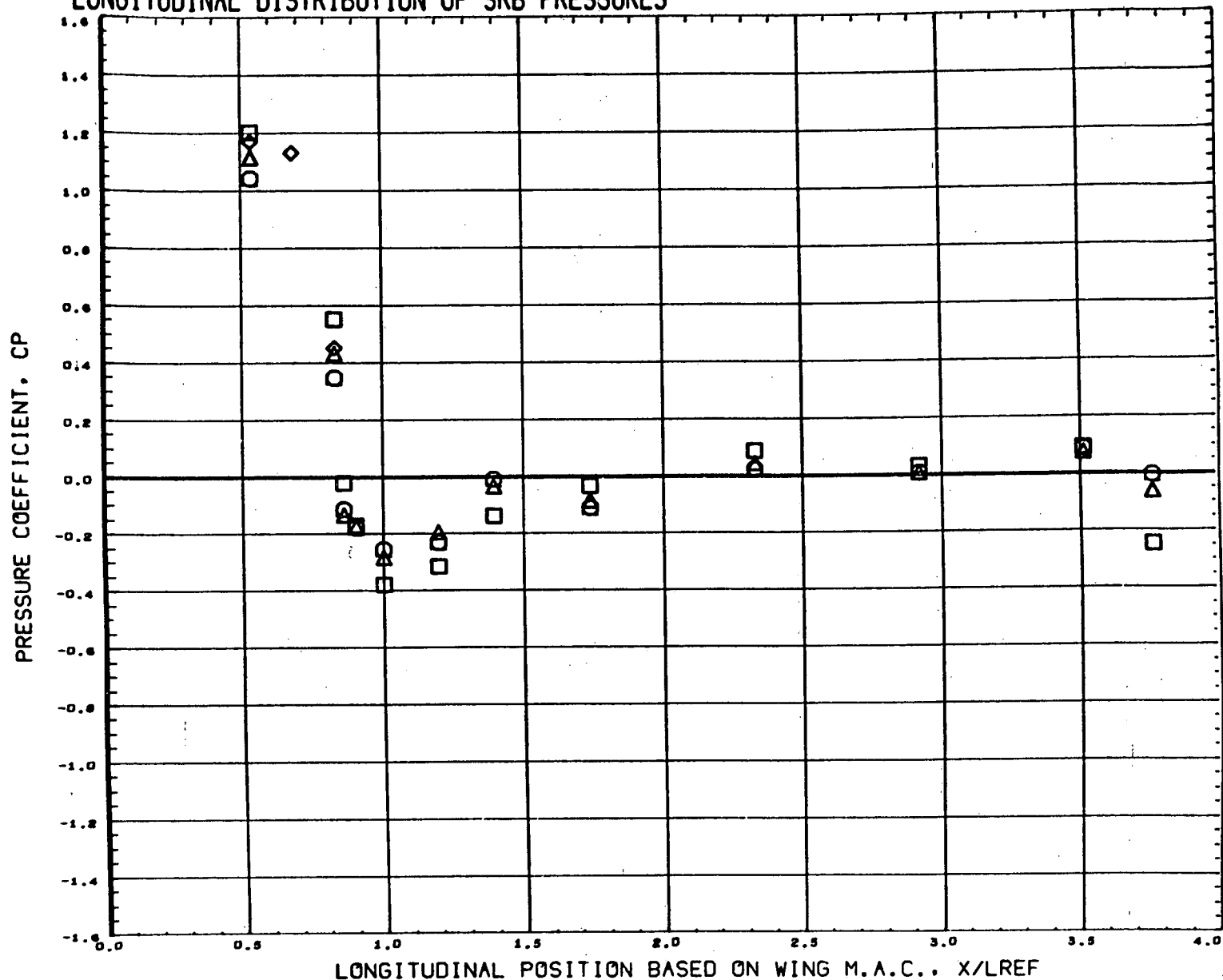
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	120.000	10.000	1.460	BETA	0.000	ORBINC 0.000
△	135.000			SRBGAP	0.025	
◇	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

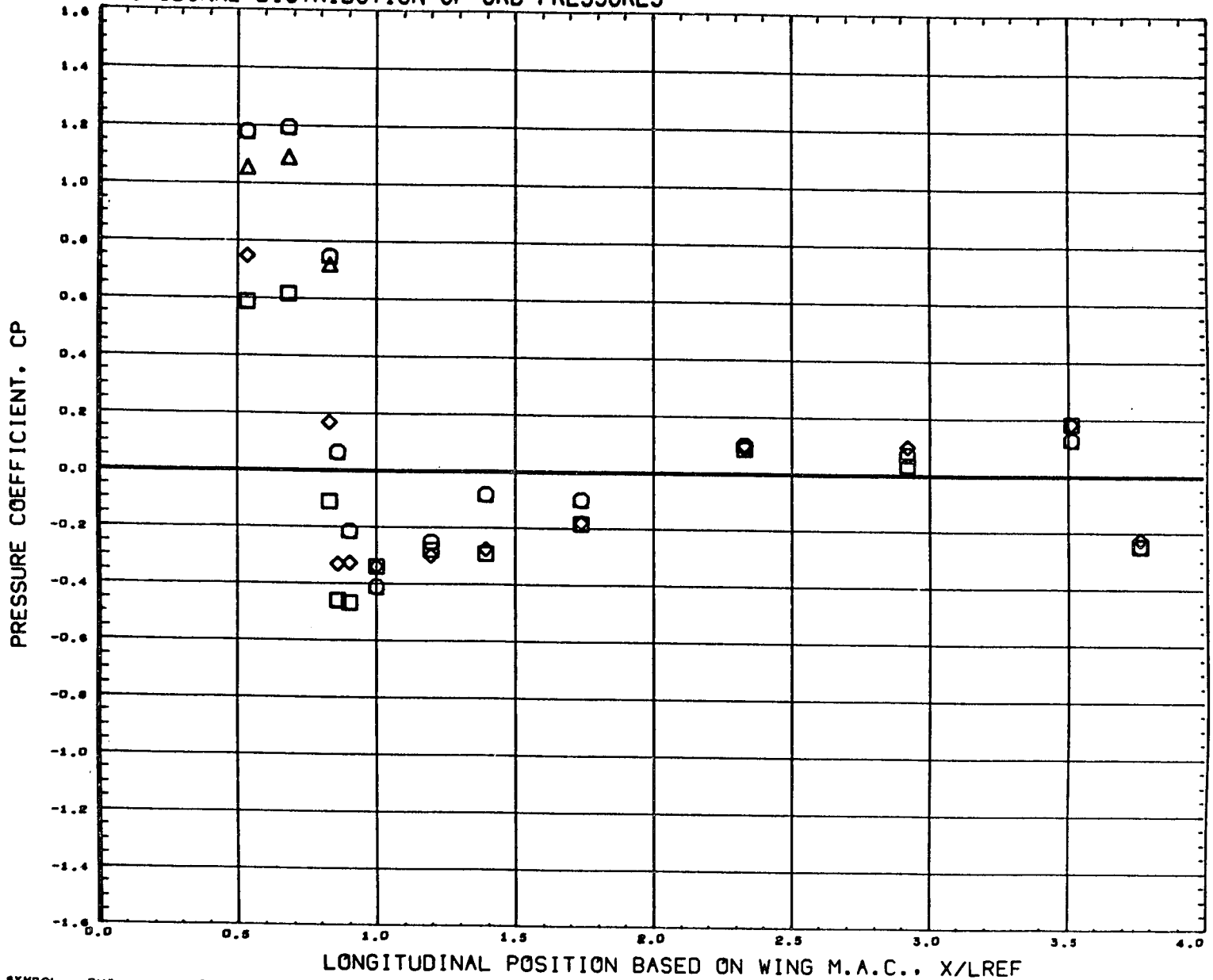
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	180.000	10.000	1.460	BETA	0.000	ORBINC 0.000
△	195.000			SRBGAP	0.025	
◇	210.000					
□	225.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

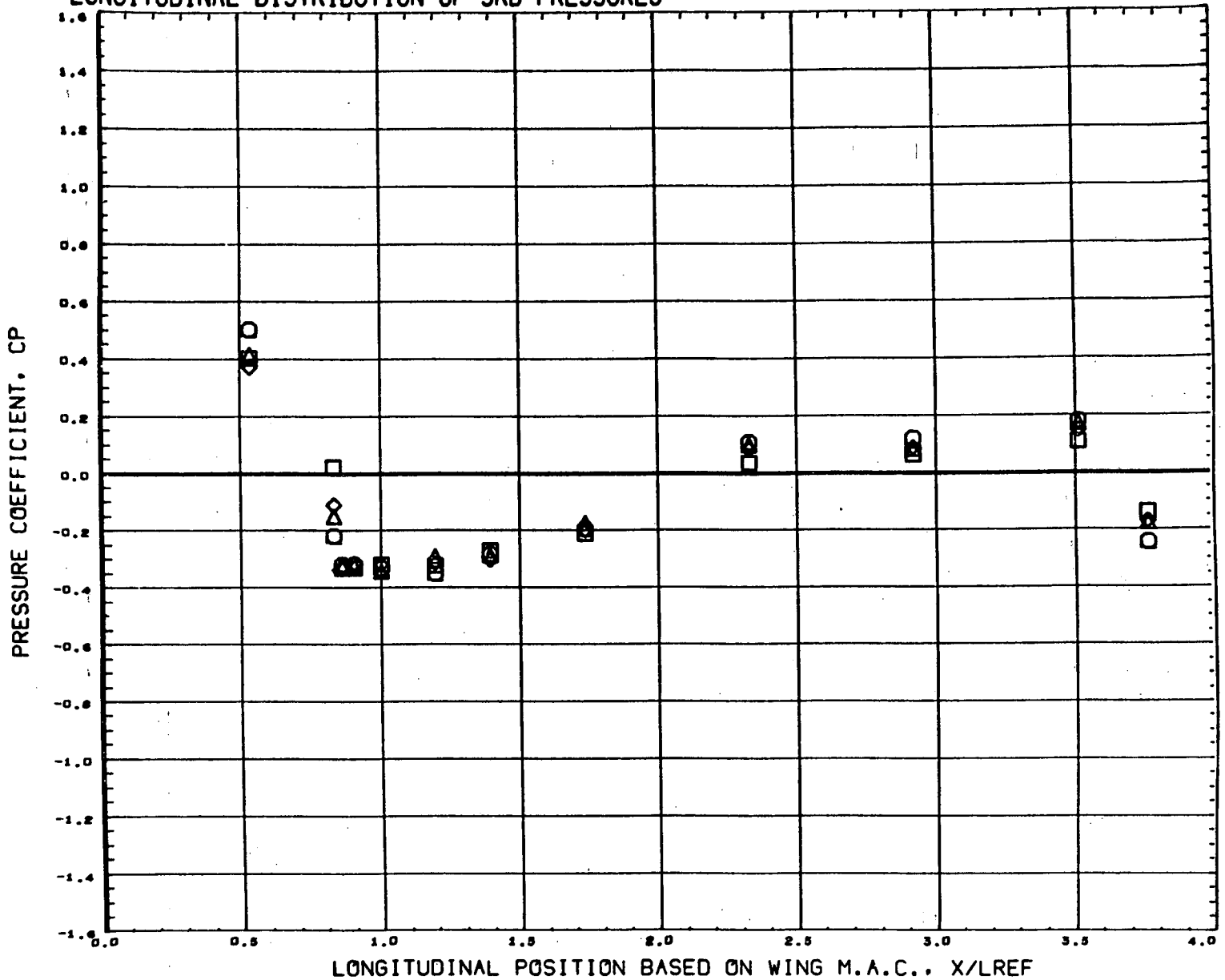
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES		
○	240.000	10.000	1.460	BETA	0.000	ORBINC 0.000
△	255.000			SRBCAP	0.025	
◇	270.000					
□	285.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

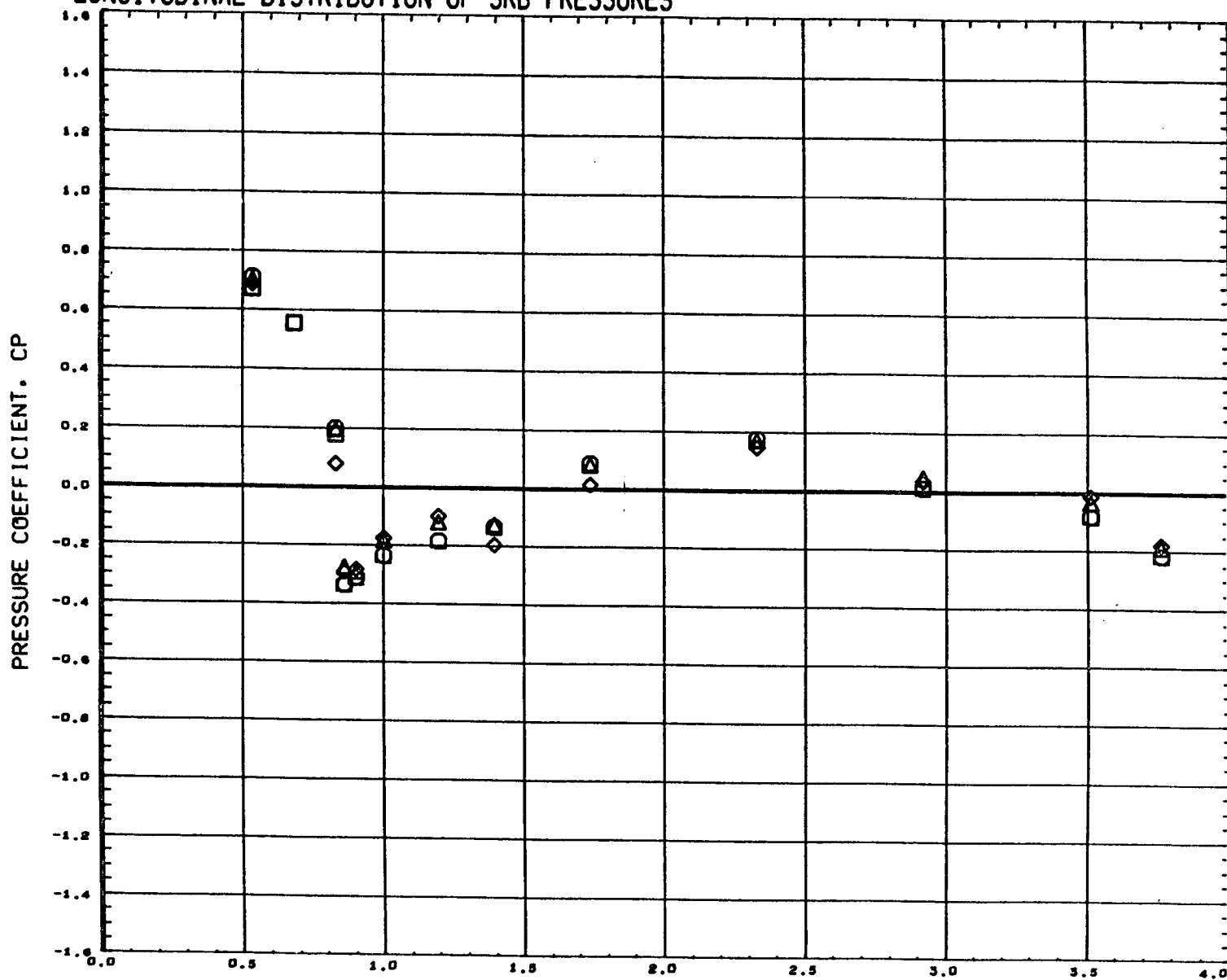
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	BETA	SRBGAP	PARAMETRIC VALUES	ORBINC	
○	300.000	10.000	1.460	0.000	0.025		0.000	
△	315.000							
◇	330.000							
□	345.000							

NOTE- SRB NOSE LOCATED AT X/LREF=.369

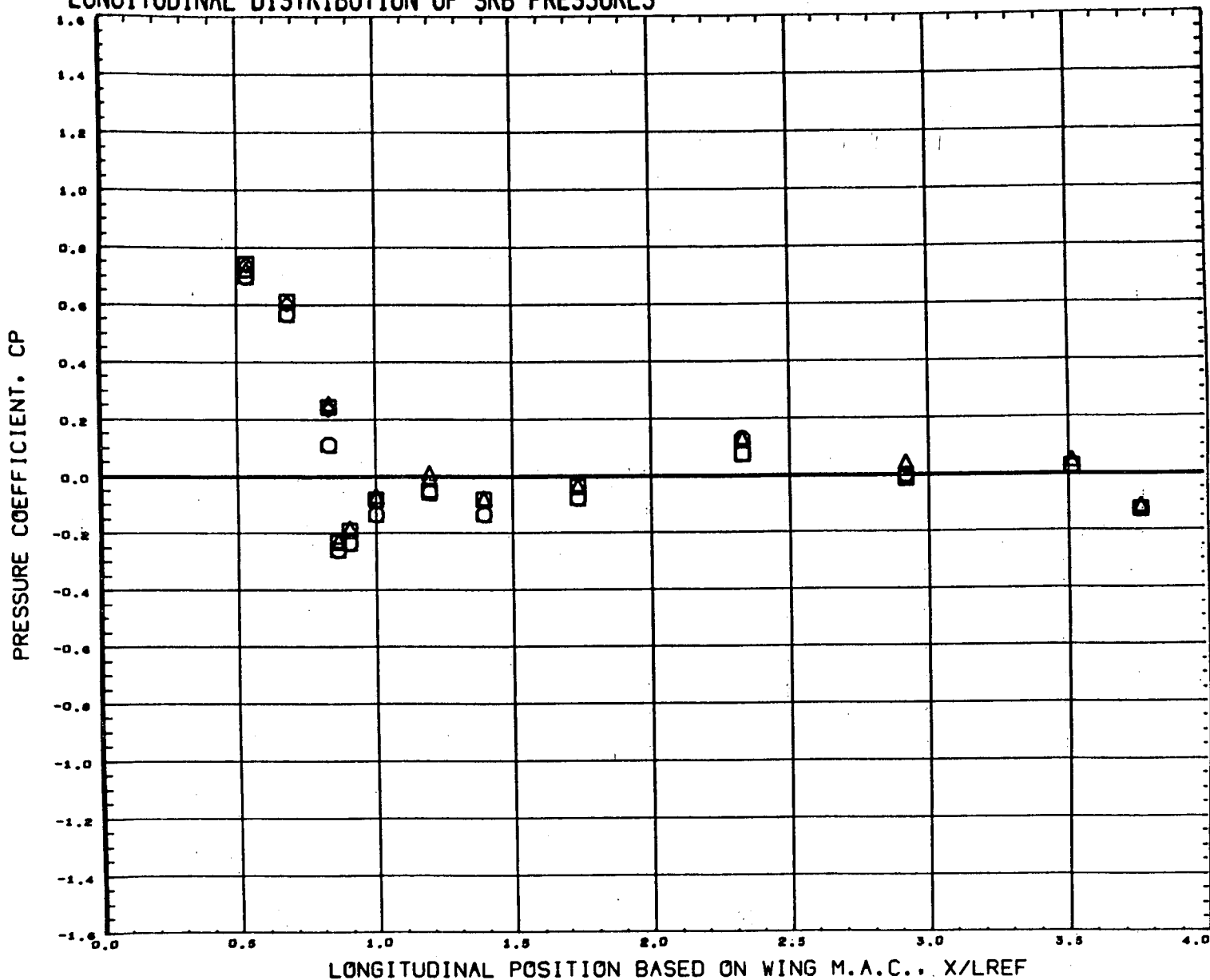
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	0.000	- 10.000	1.200	ALPHA 0.000 ORBINC - 1.500
△	15.000			SRBGAP 0.025
◇	30.000			
□	45.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

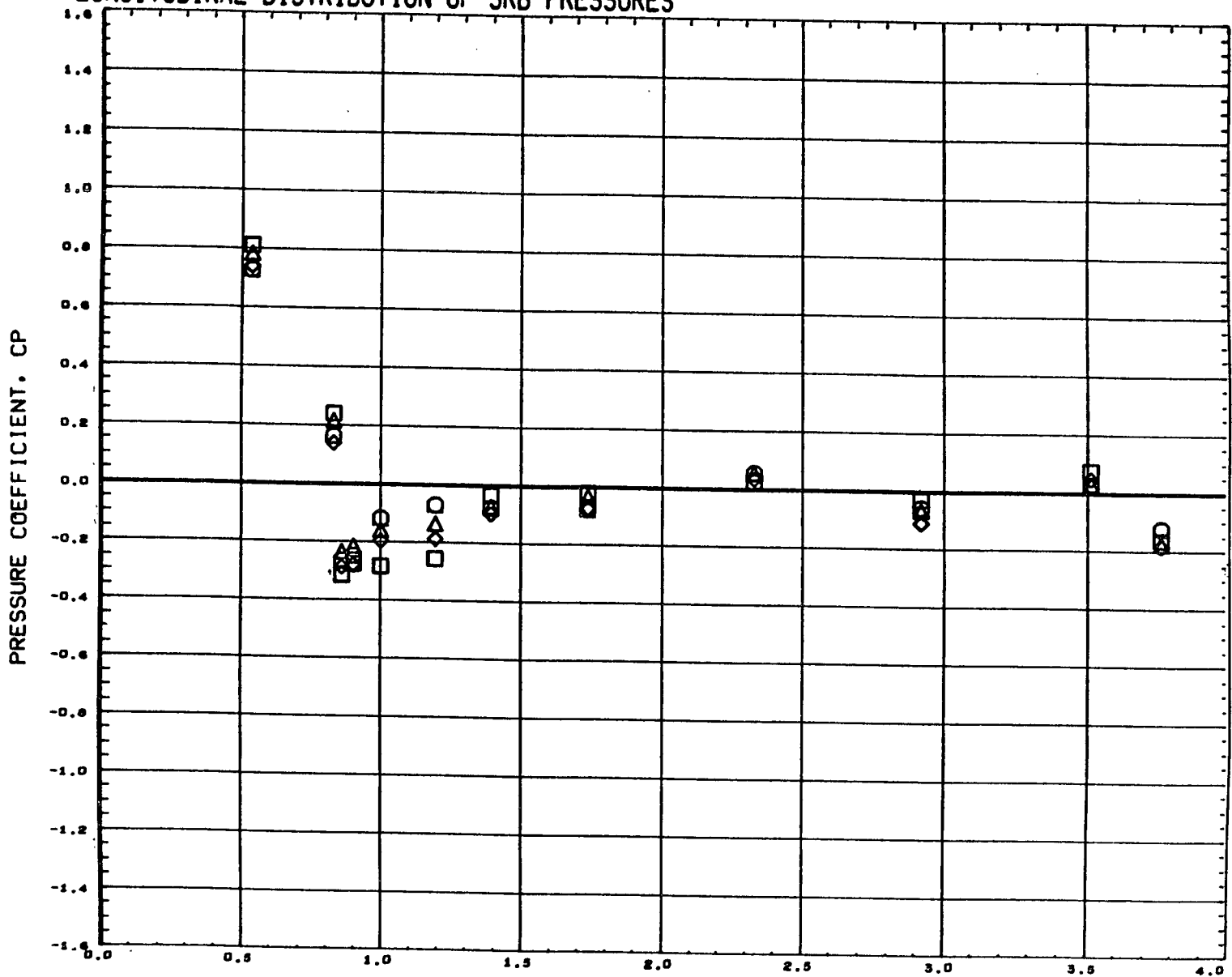
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	ALPHA	SRBGAP	PARAMETRIC VALUES	ORBNIC
○	60,000	- 10,000	1,200	0,000	0,025		- 1,500
△	75,000						
◇	90,000						
□	105,000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

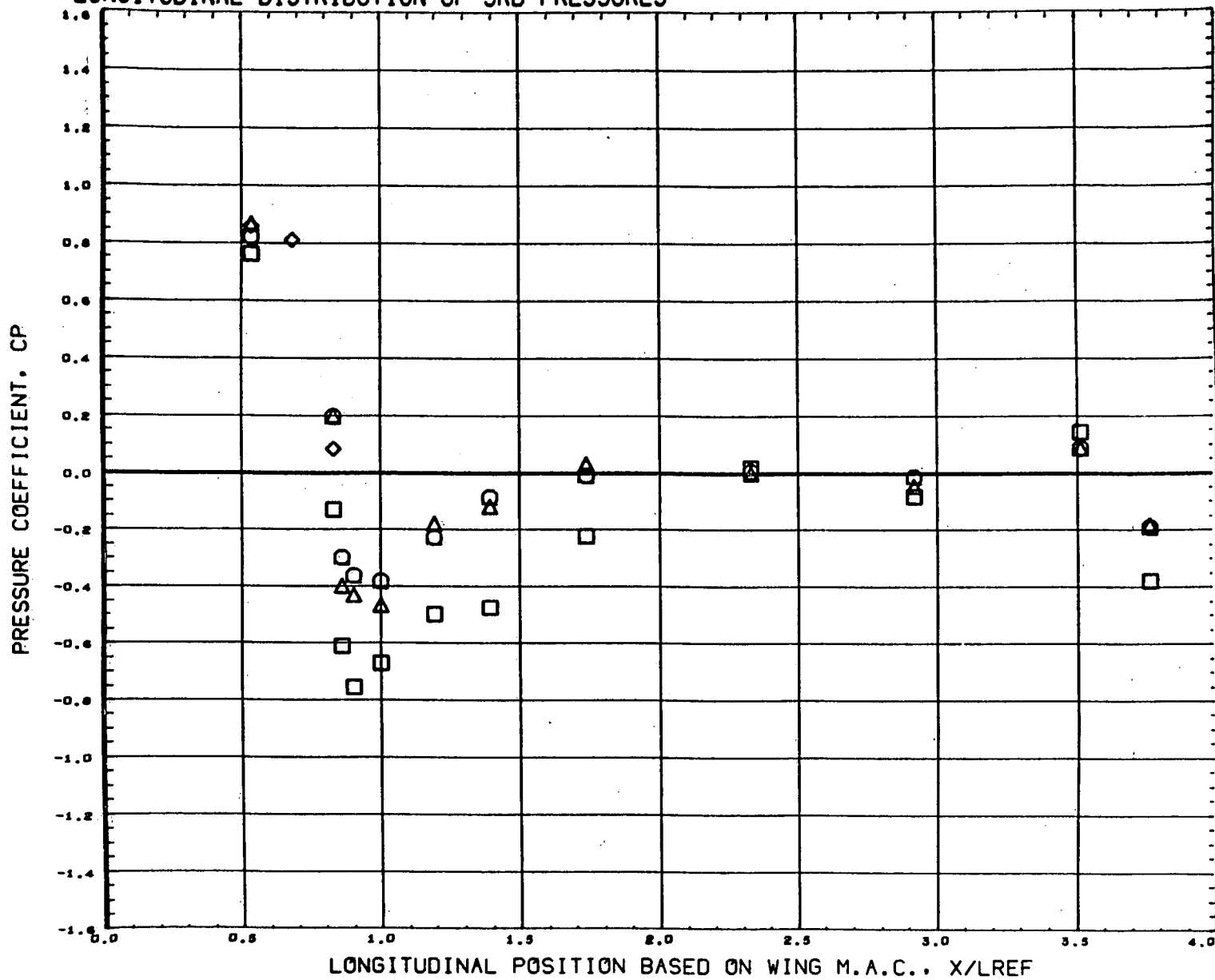
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	120.000	- 10.000	1.200	ALPHA	0.000
△	135.000			SRBCAP	0.025
◇	150.000			ORBNIC	- 1.500
□	165.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

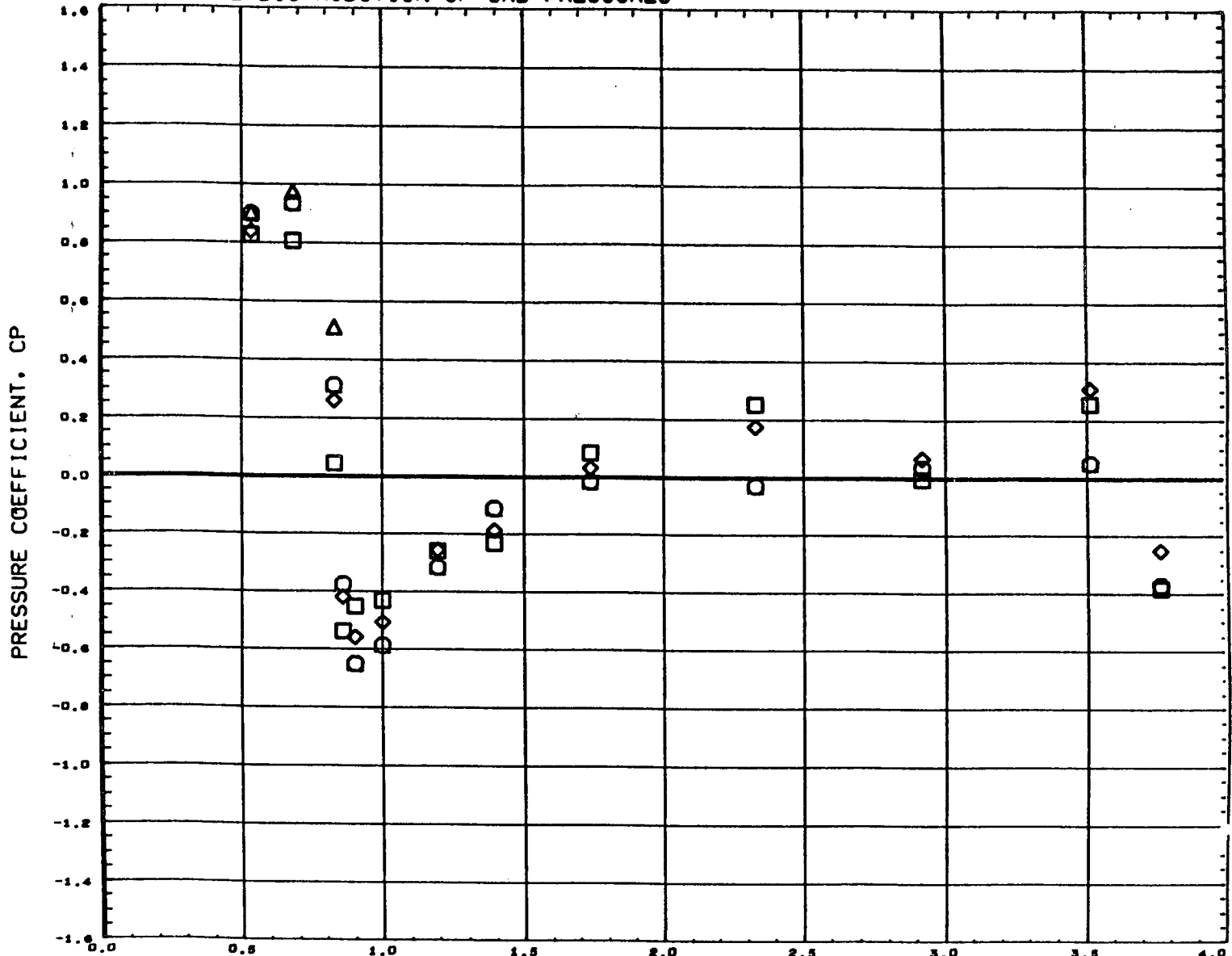
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	180.000	10.000	1.200	ALPHA 0.000 ORBINC - 1.500
△	195.000			SRBGAP 0.025
◇	210.000			
□	225.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

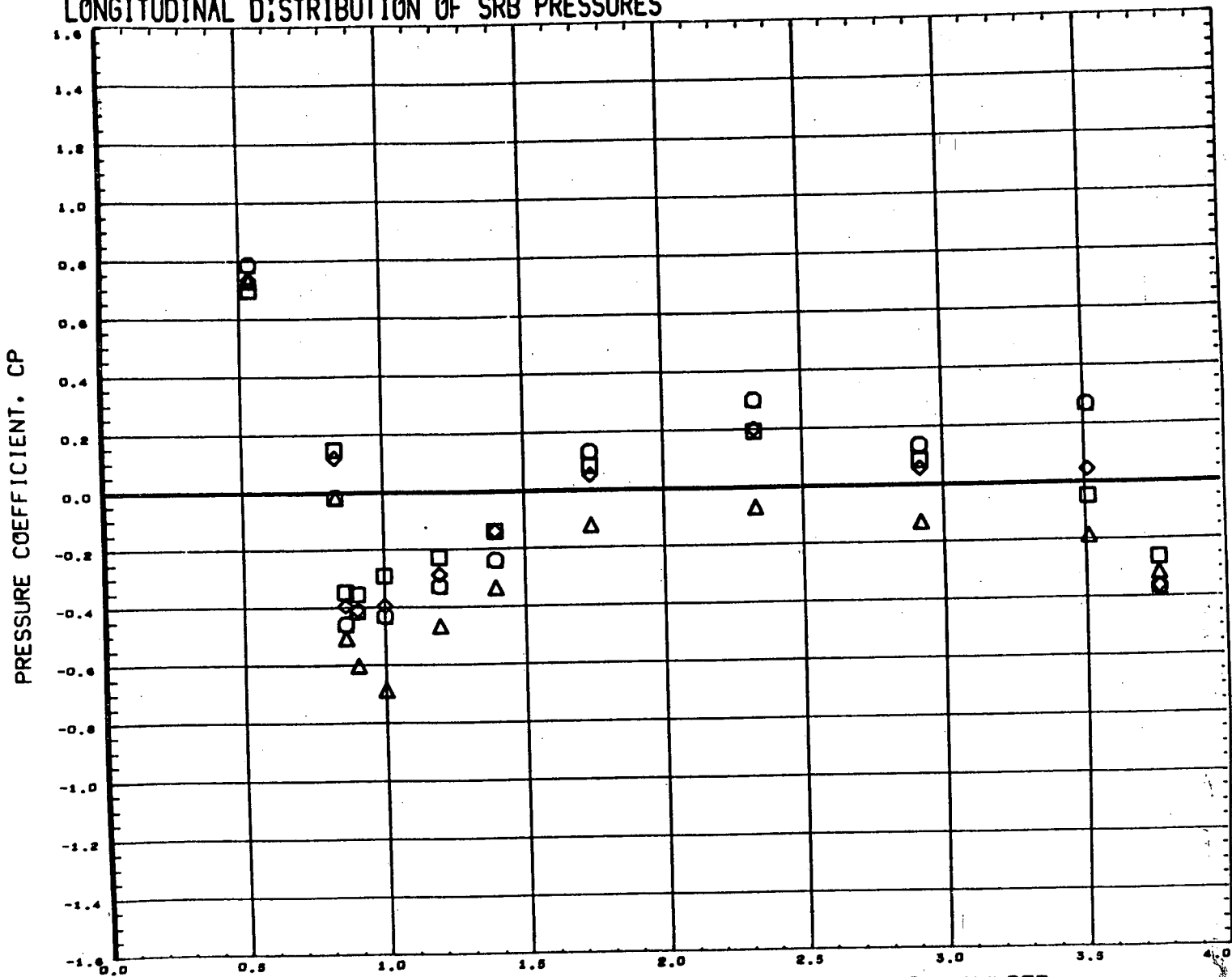


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	240.000	- 10.000	1.200	ALPHA	0.000
△	255.000			SRBGAP	0.025
◇	270.000				
□	285.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL PHI BETA MACH
 ○ 300,000 - 10.000 1.200
 △ 315,000
 ◇ 330,000
 □ 345,000

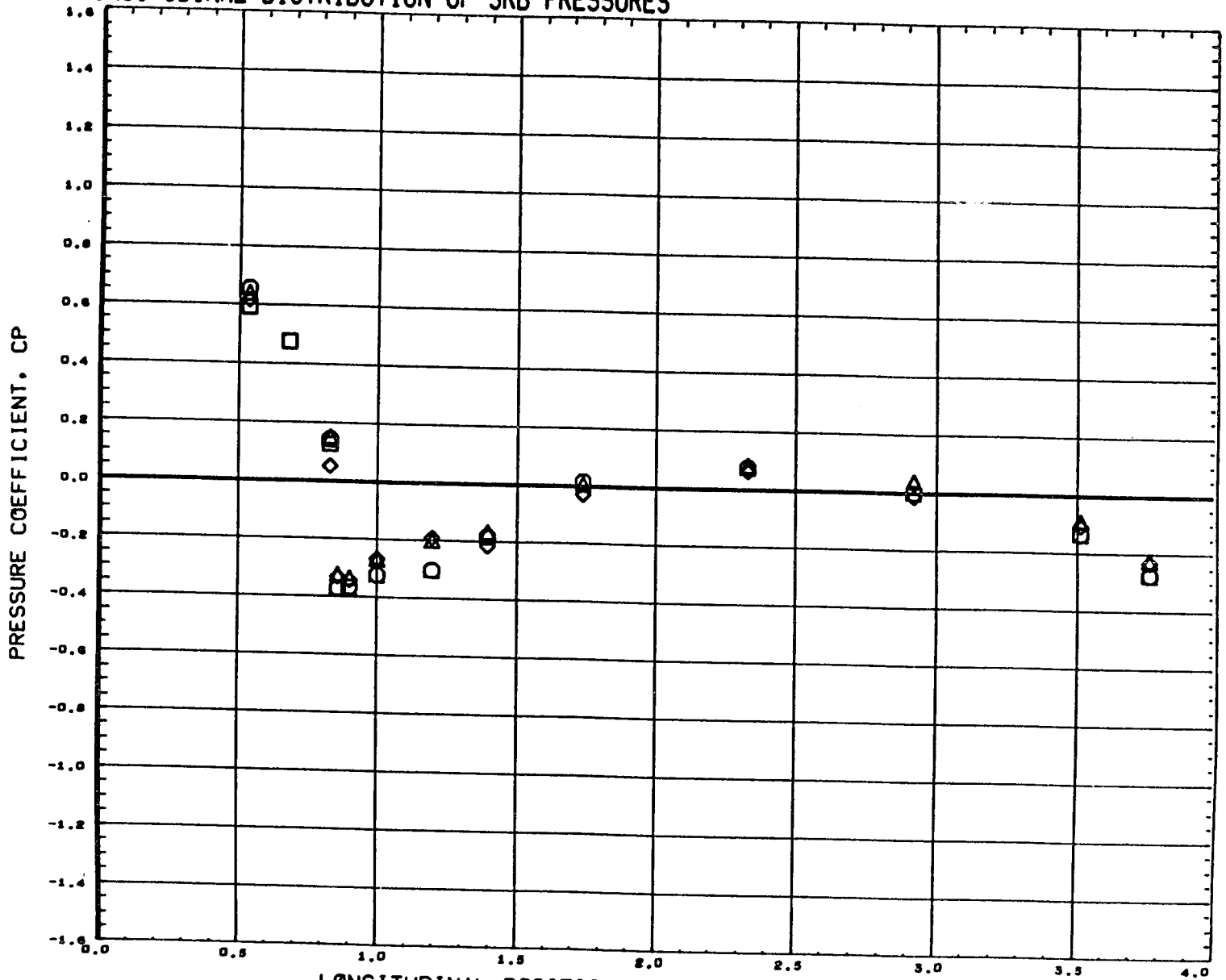
PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703SM)

PAGE 531

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL PHI BETA MACH
 ○ 0.000 - 4.000 1.200
 △ 15.000
 ◇ 30.000
 □ 45.000

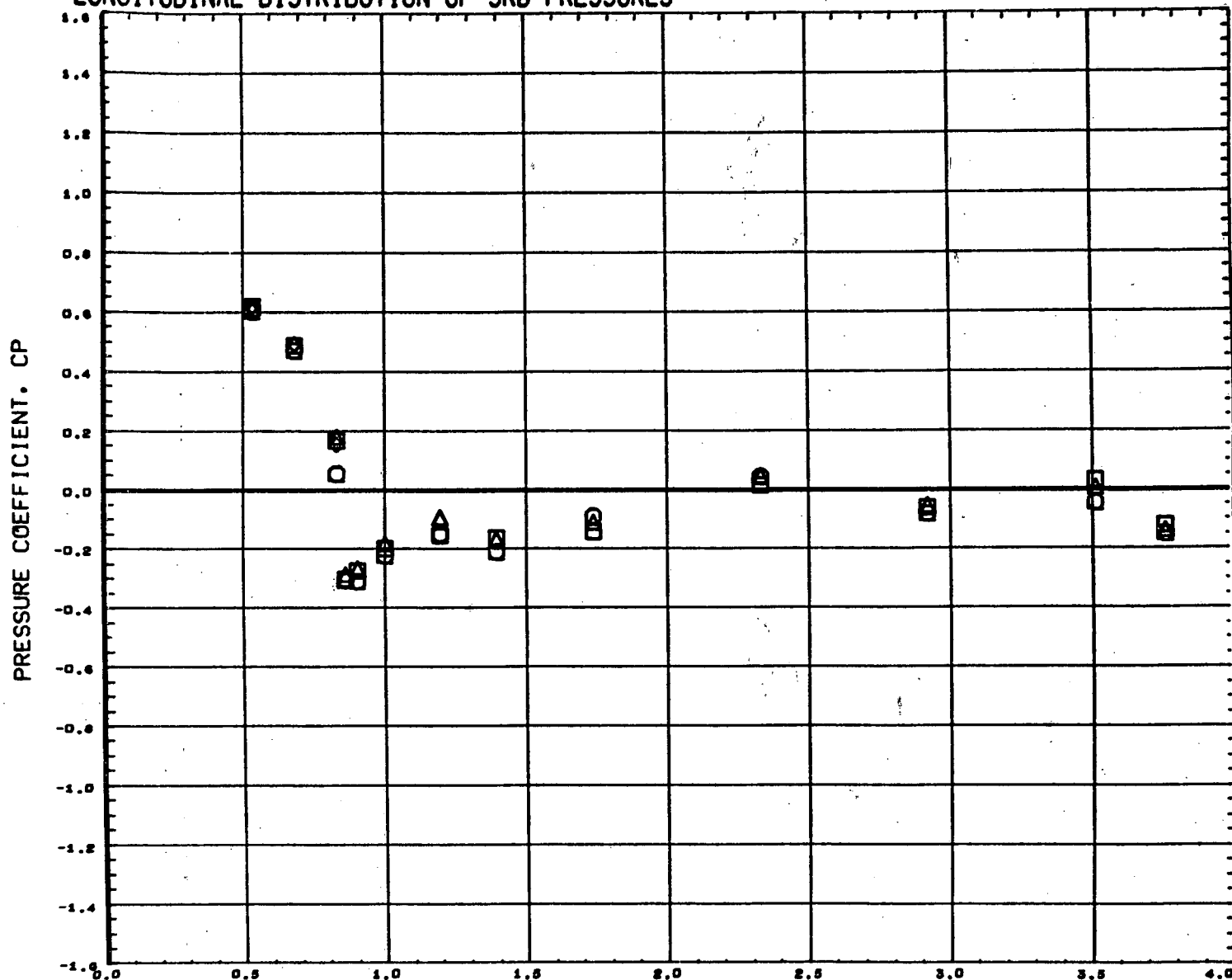
PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R703SM)

PAGE 532

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

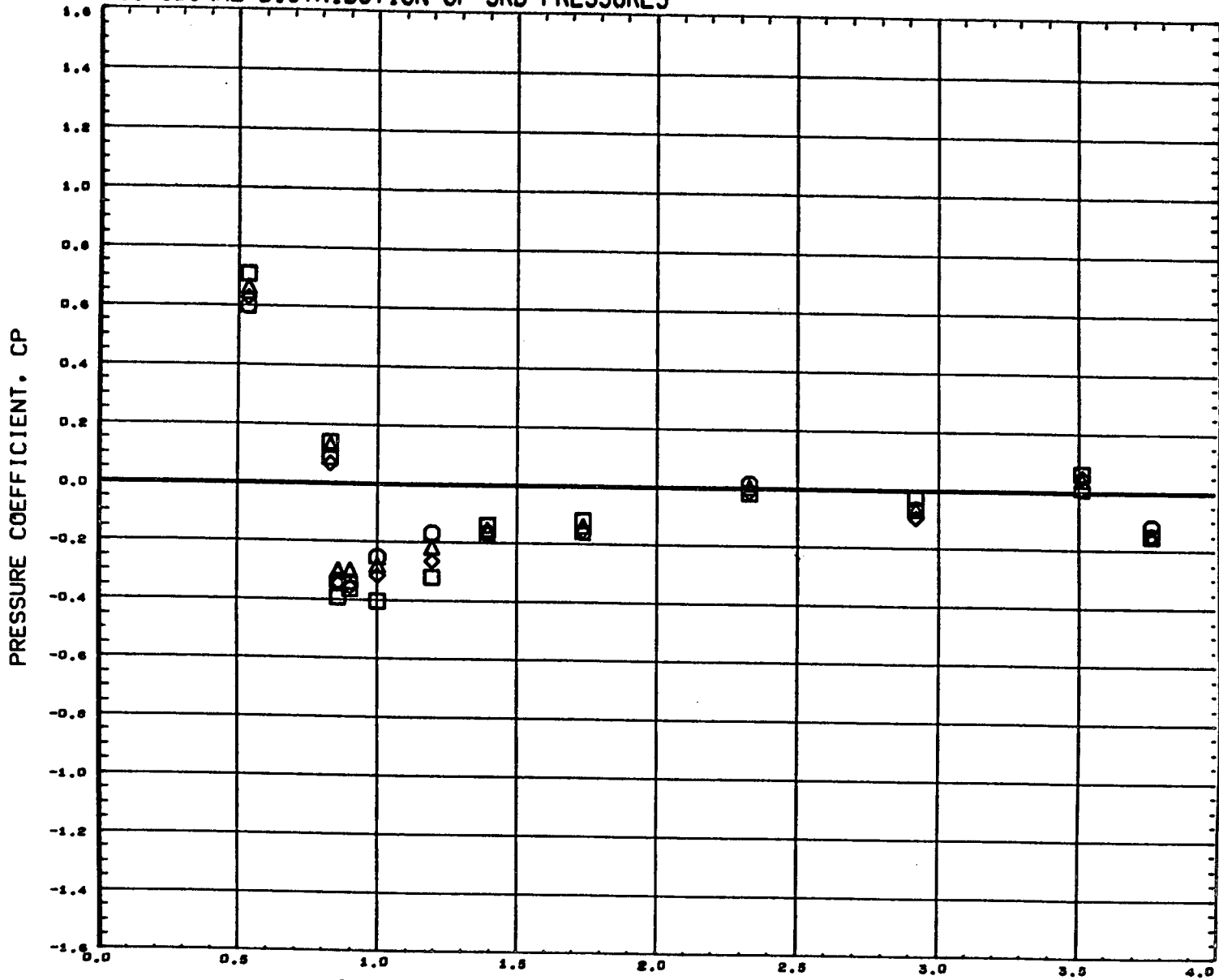


SYMBOL PHI BETA MACH
 ○ 60.000 - 4.000 1.200
 △ 75.000
 □ 90.000
 ◇ 105.000

PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.309

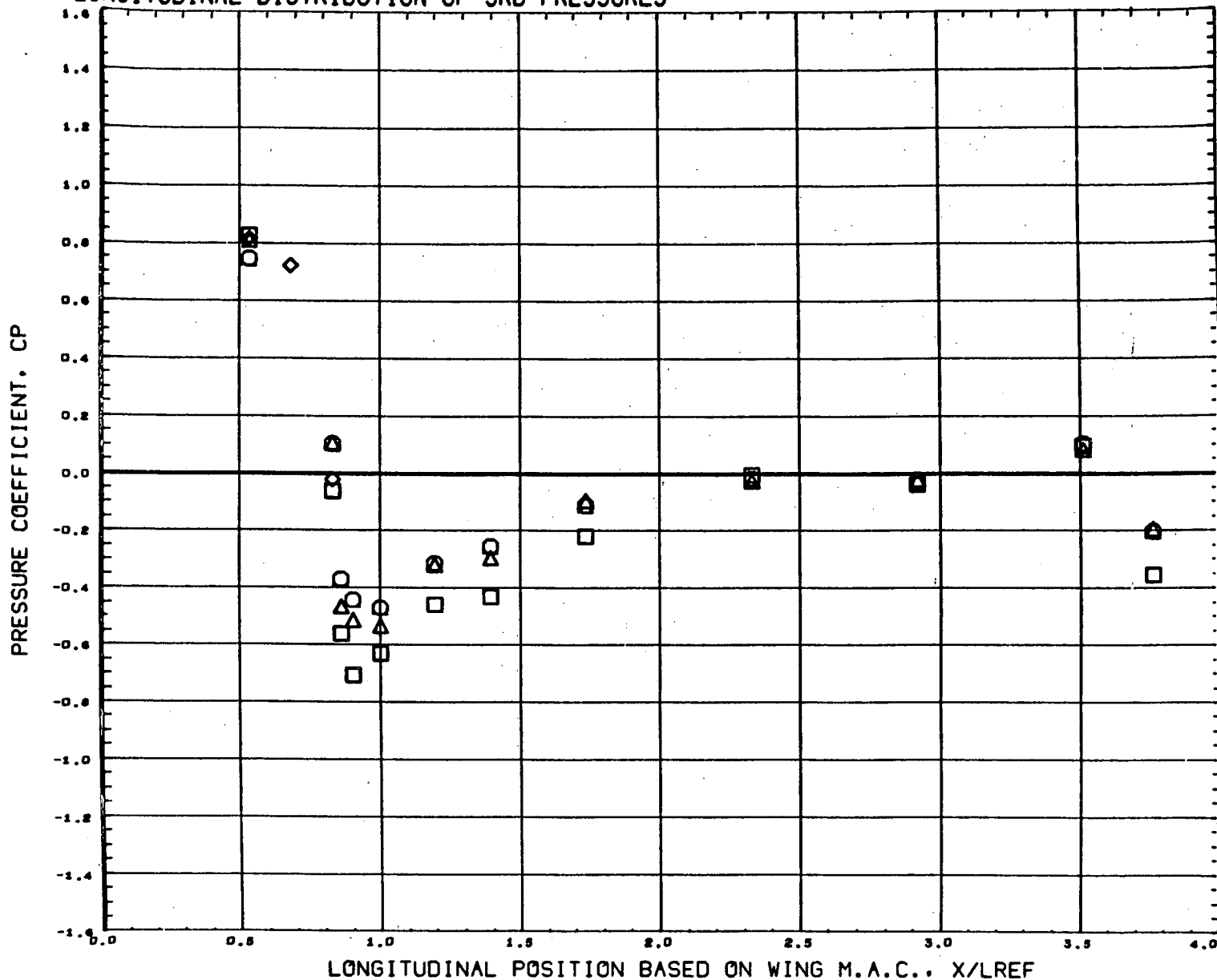
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	ALPHA	SRBGAP	PARAMETRIC VALUES	
○	120,000	- 4.000	1.200	0.000	0.025	ORBINC	- 1.500
△	135,000						
◇	150,000						
□	165,000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

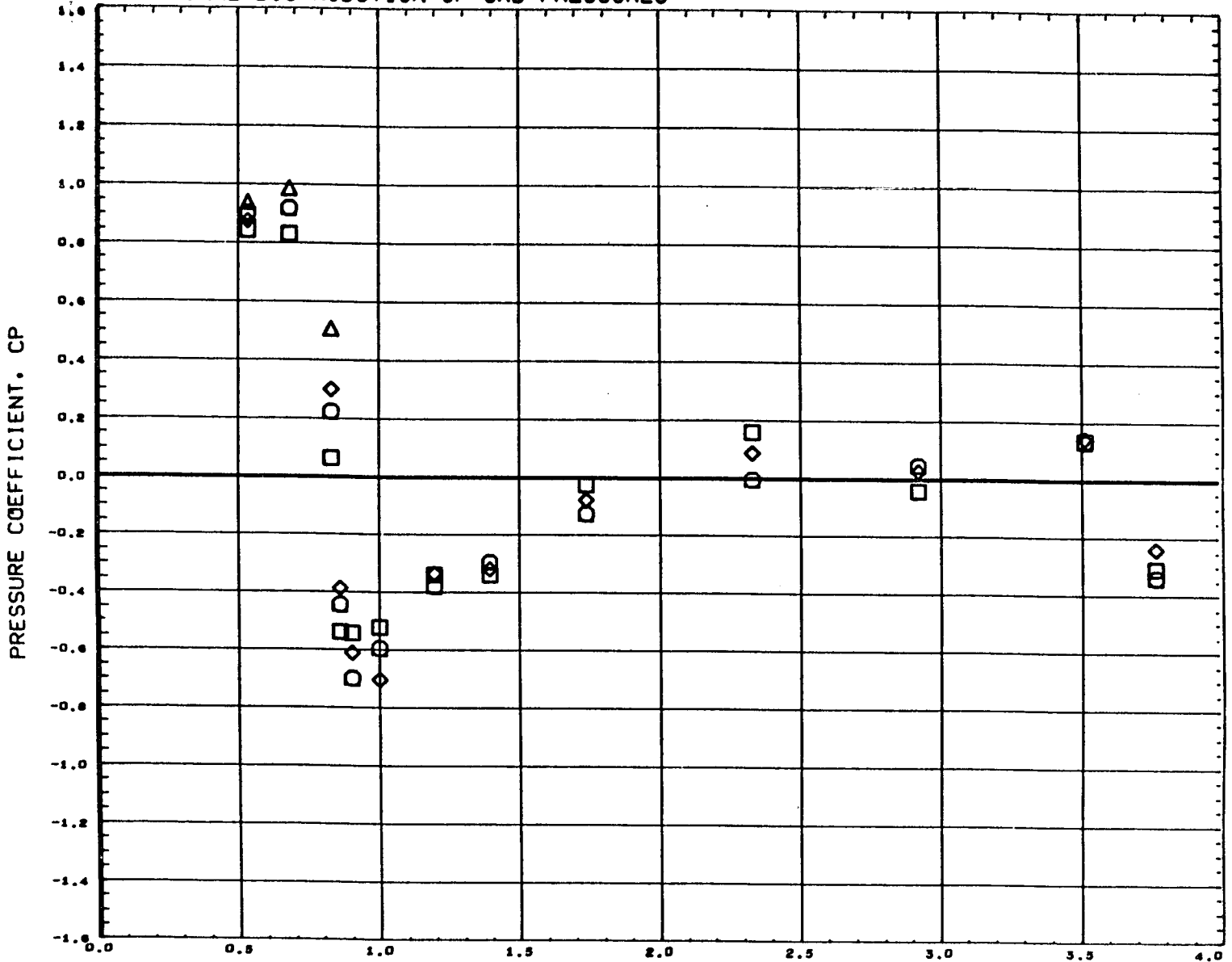
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	180.000	- 4.000	1.200	ALPHA 0.000 ORBINC - 1.500
△	195.000			SRBGAP 0.025
◇	210.000			
□	225.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

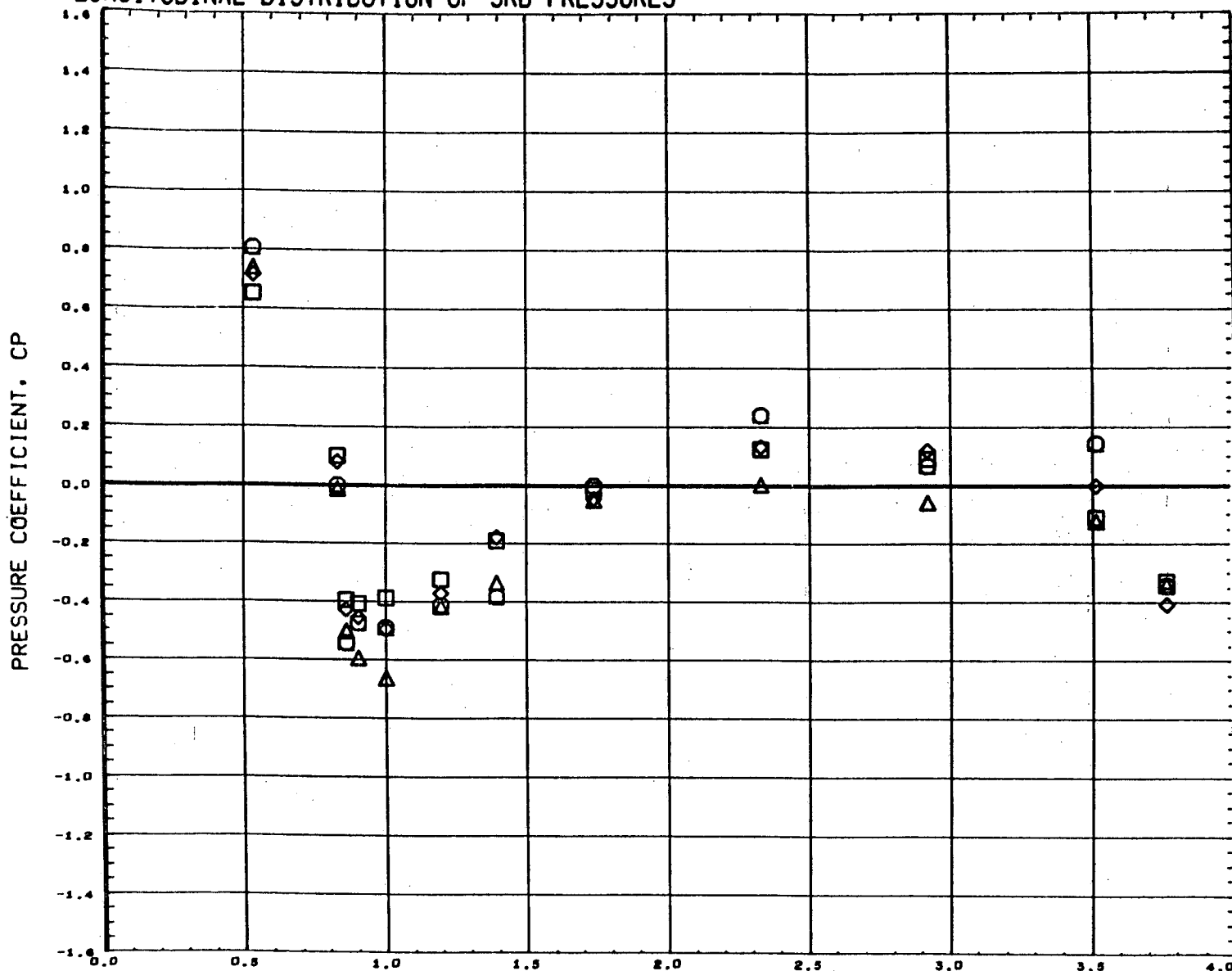
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	240.000	- 4.000	1.200	ALPHA	0.000
△	255.000			SRBGAP	0.025
◇	270.000				
□	285.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



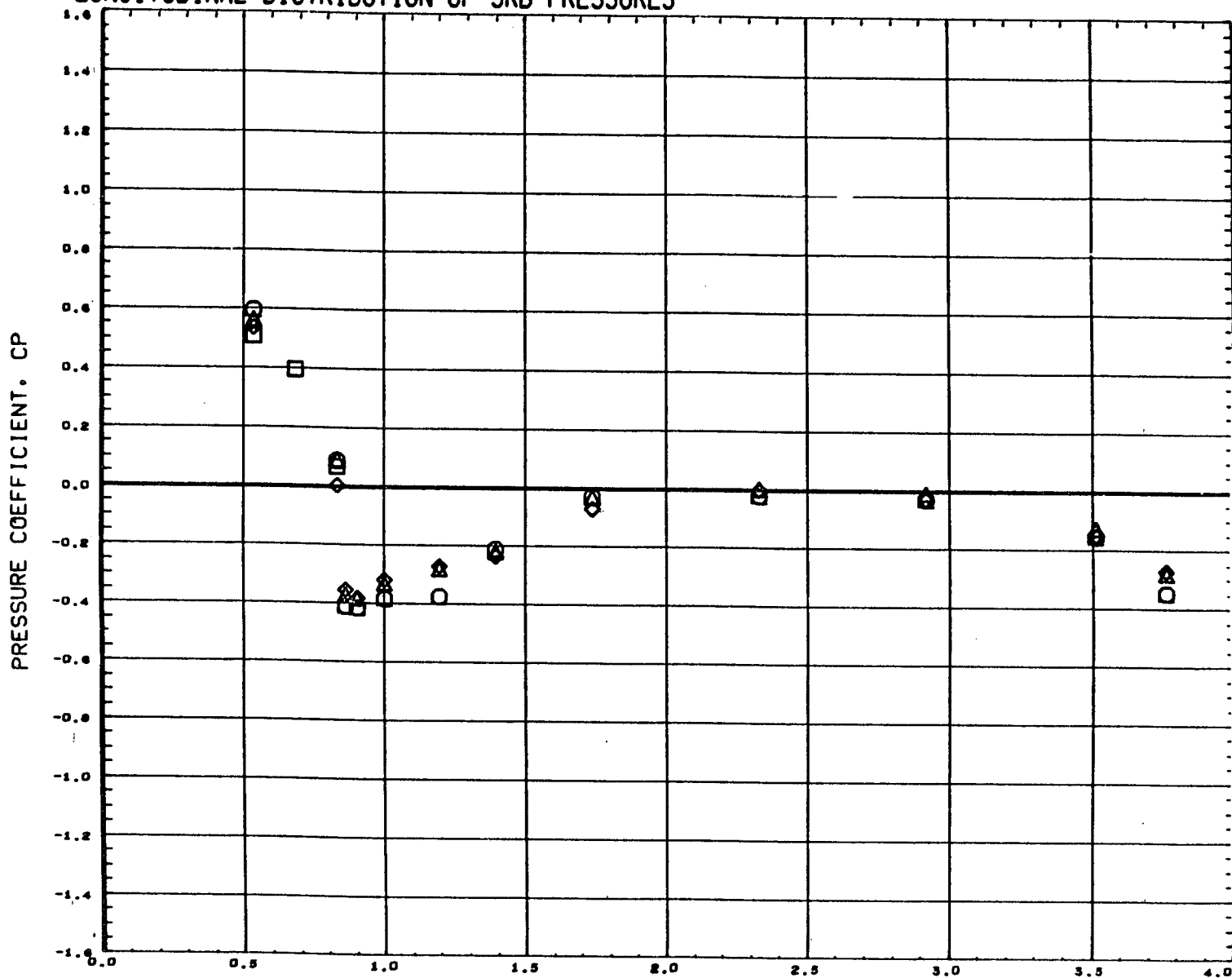
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	300,000	- 4,000	1,200
△	315,000		
◇	330,000		
□	345,000		

PARAMETRIC VALUES		
ALPHA	0,000	ORBINC - 1,500
SRBGAP	0,025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

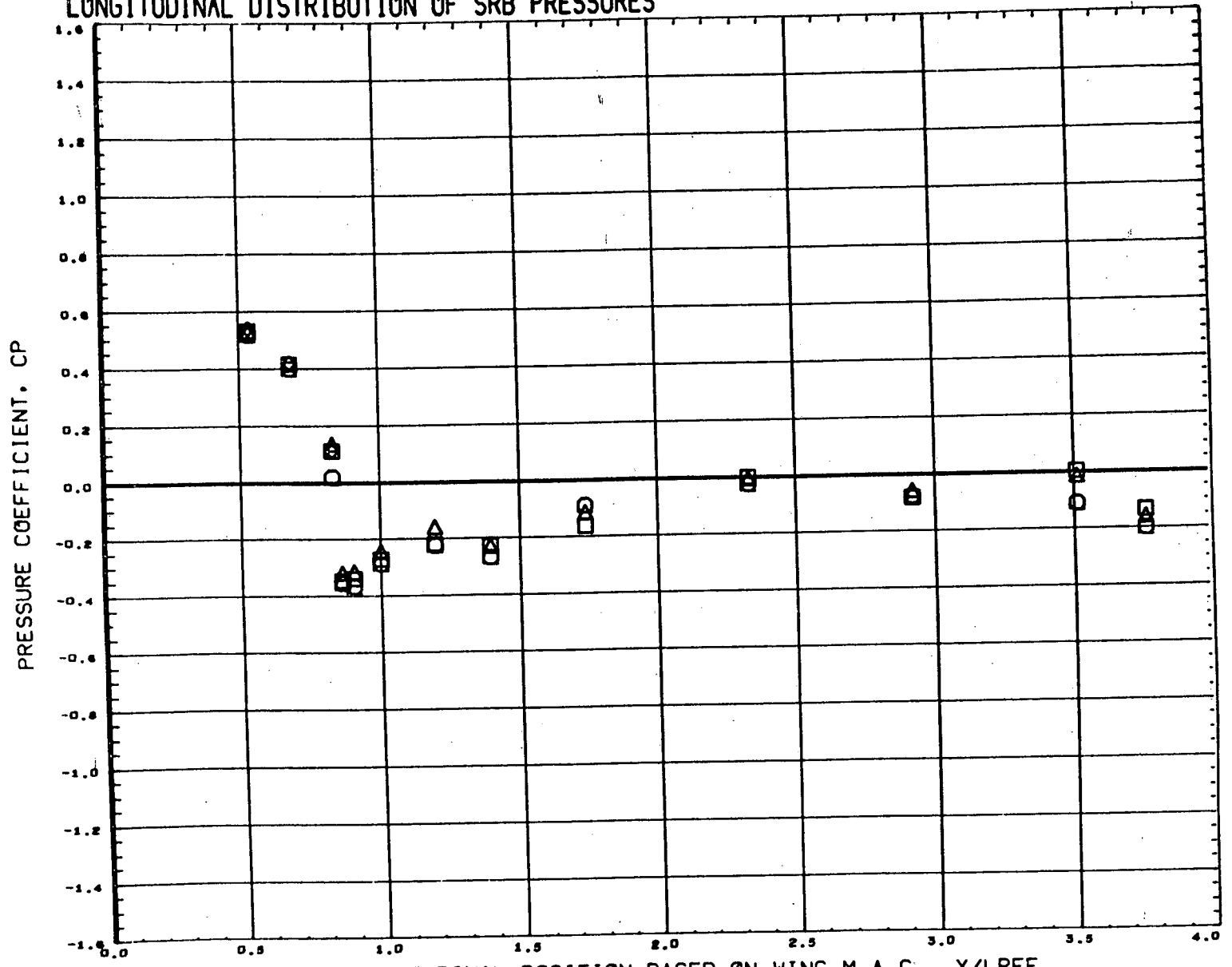
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	1.200	ALPHA	0.000 ORBINC - 1.500
△	15.000			SRBCAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

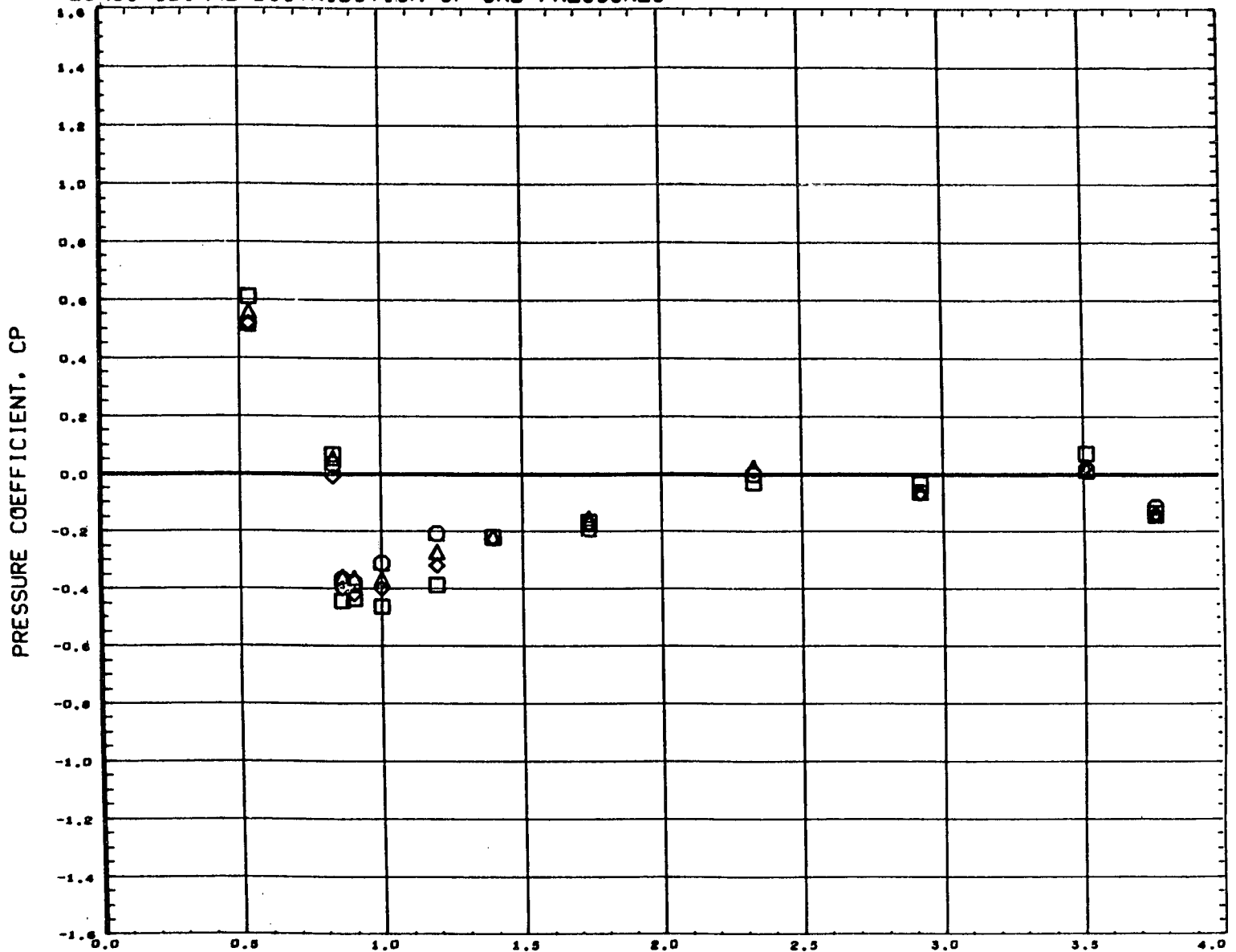
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	ALPHA	SRBGAP	PARAMETRIC VALUES	
○	60,000	0.000	1.200	0.000	0.025	ORBINC	- 1.500
△	75,000						
◇	90,000						
□	105,000						

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

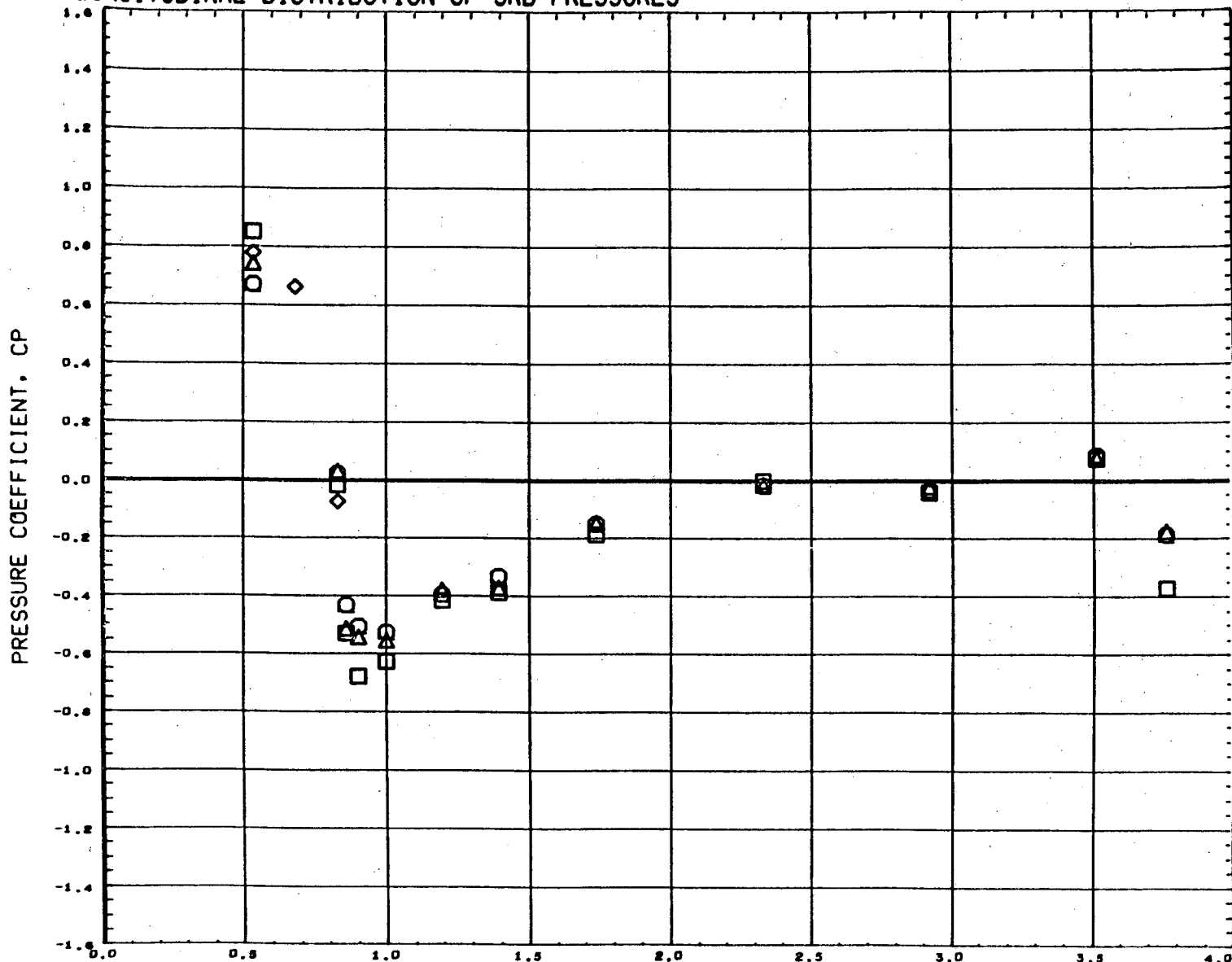


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	120.000	0.000	1.200	ALPHA 0.000 ORBINC - 1.500
△	135.000			SRBGAP 0.025
◇	150.000			
□	165.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

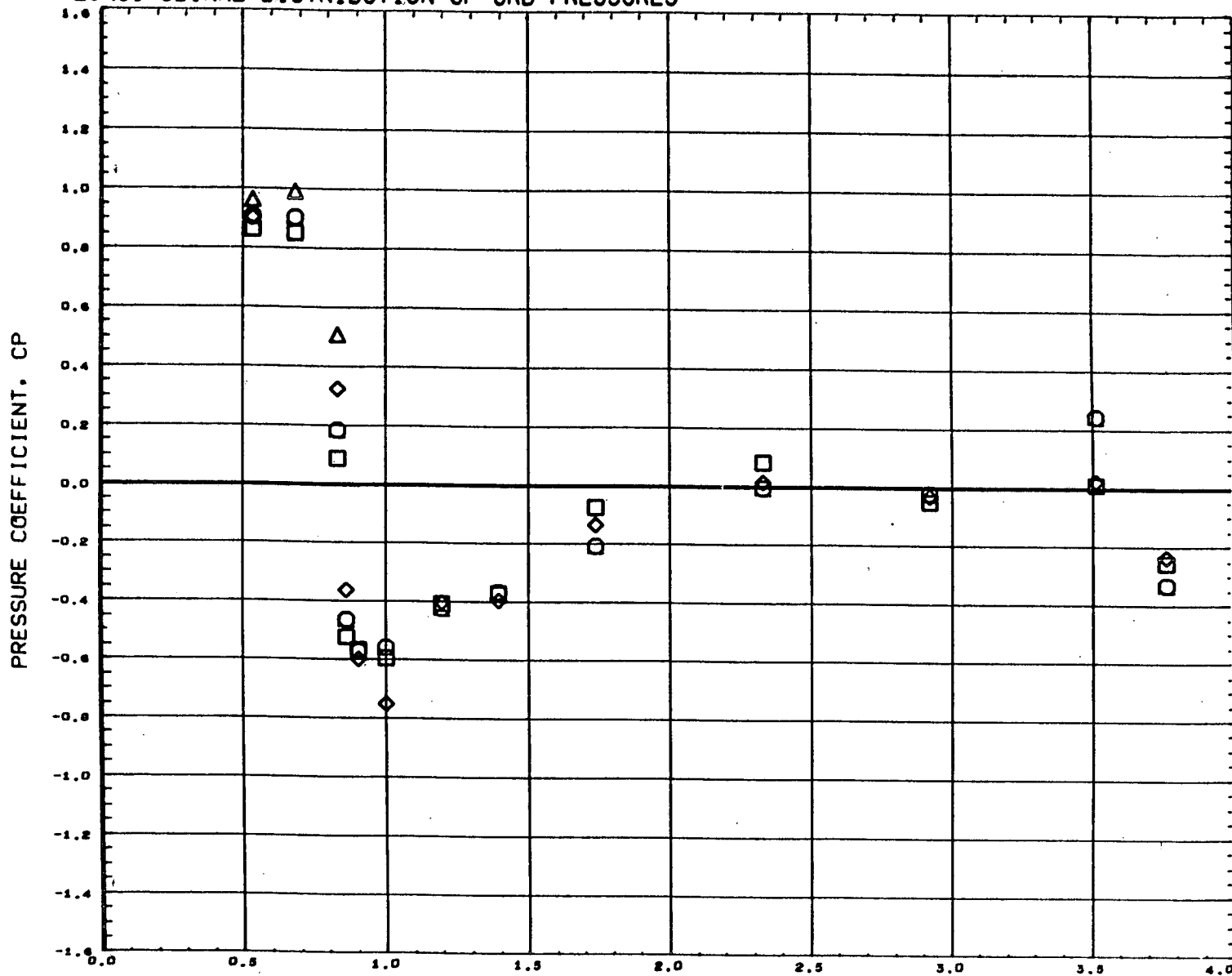
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	180.000	0.000	1.200	ALPHA	0.000	ORBINC - 1.500
△	195.000			SRBGAP	0.025	
◇	210.000					
□	225.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



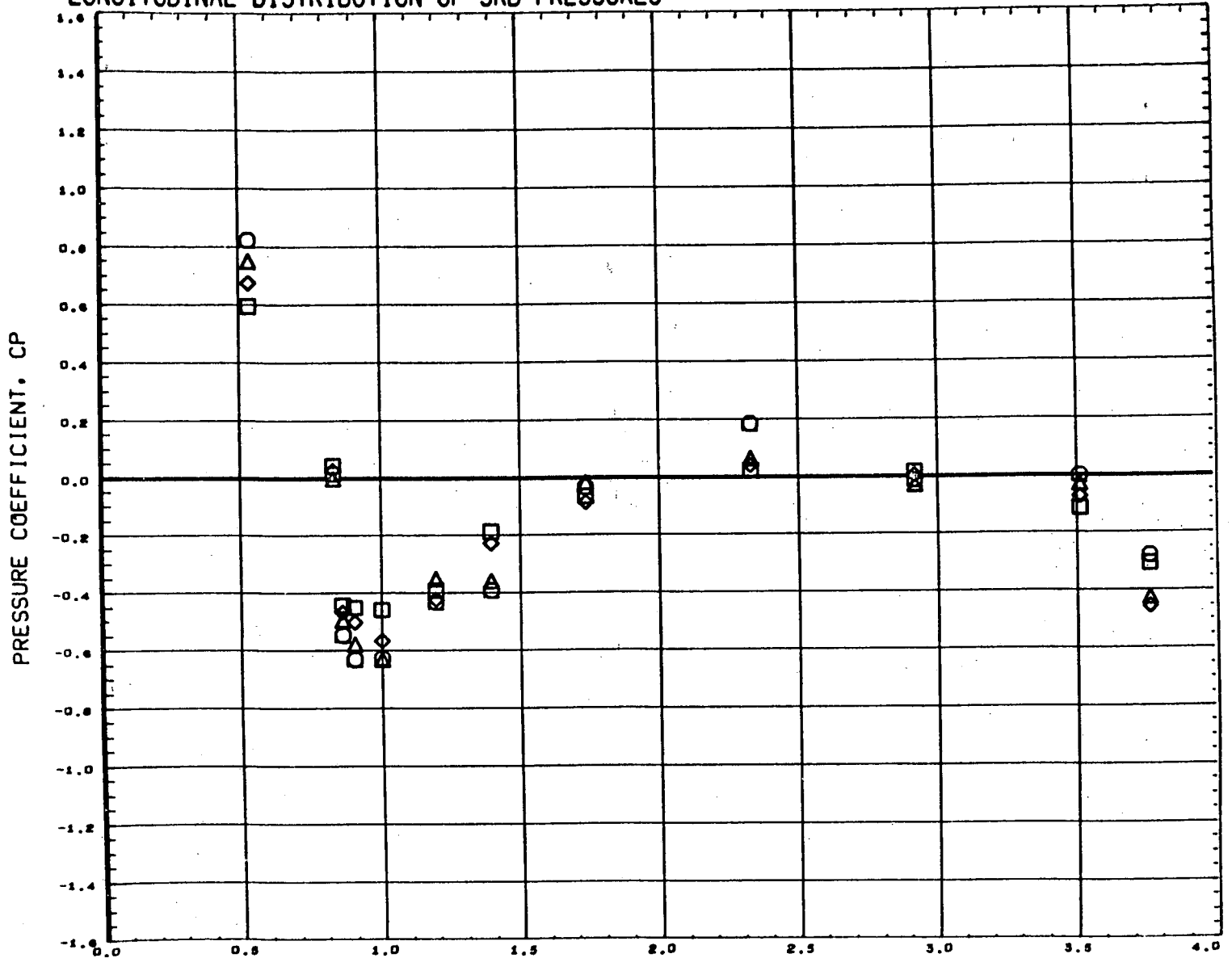
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	240.000	0.000	1.200
△	255.000		
◇	270.000		
□	285.000		

PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

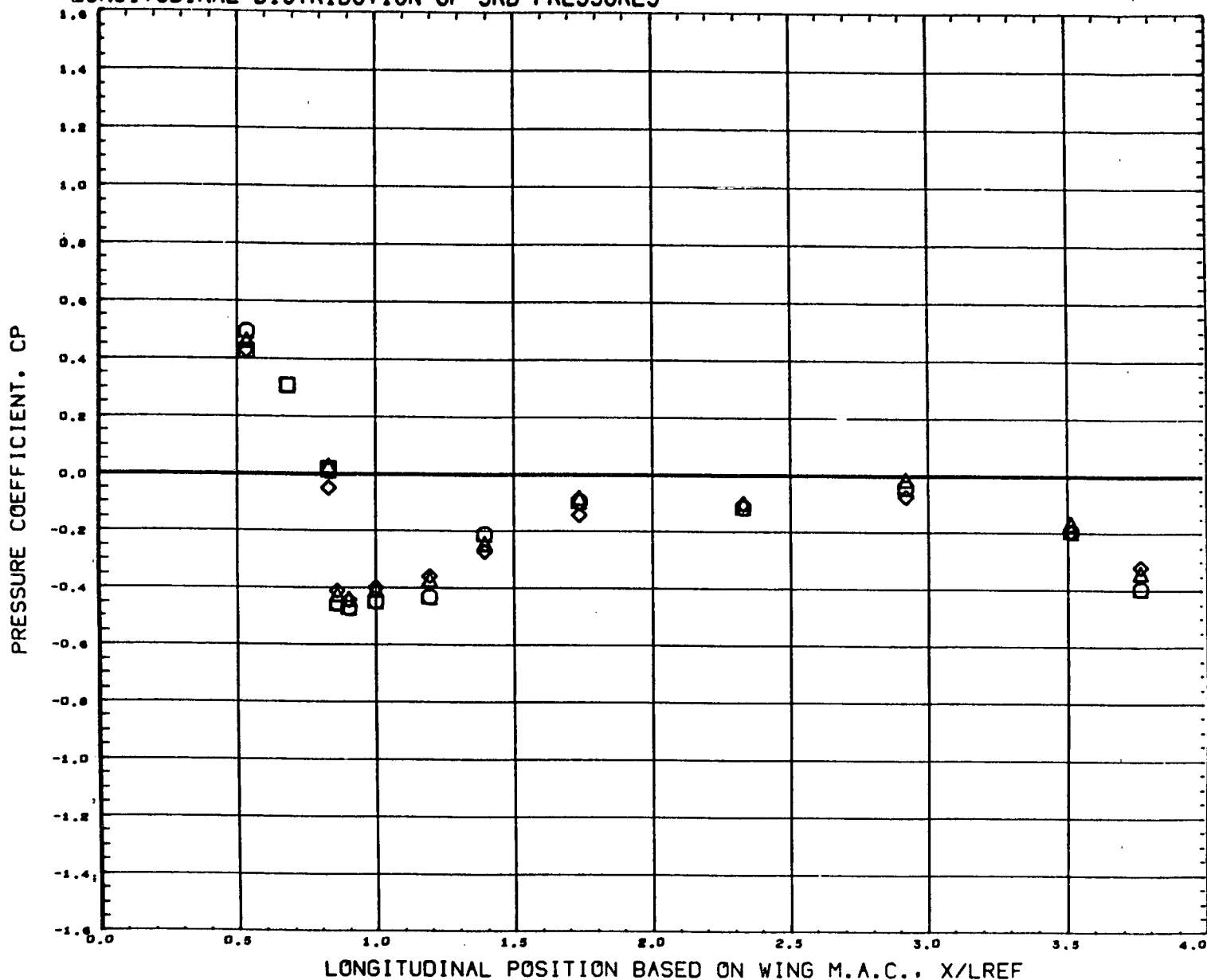


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	ALPHA	SRBGAP	PARAMETRIC VALUES
○	300,000	0.000	1.200	0.000	0.025	ORBINC - 1.500
△	315,000					
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=0.369

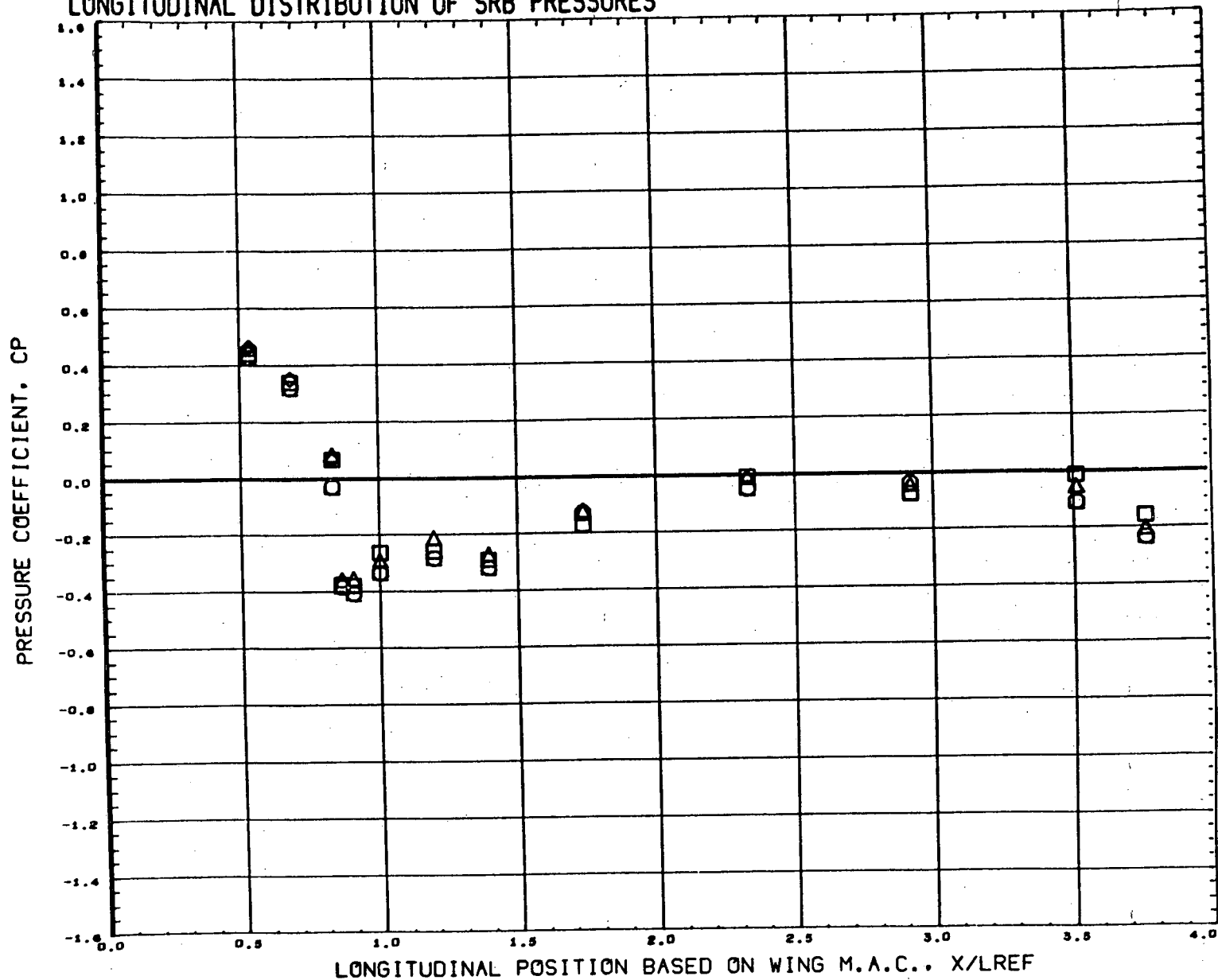
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	ALPHA	PARAMETRIC VALUES
◇	0.000	4.000	1.200	0.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025
□	30.000				
○	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	60.000	4.000	1.200
△	75.000		
◇	90.000		
□	105.000		

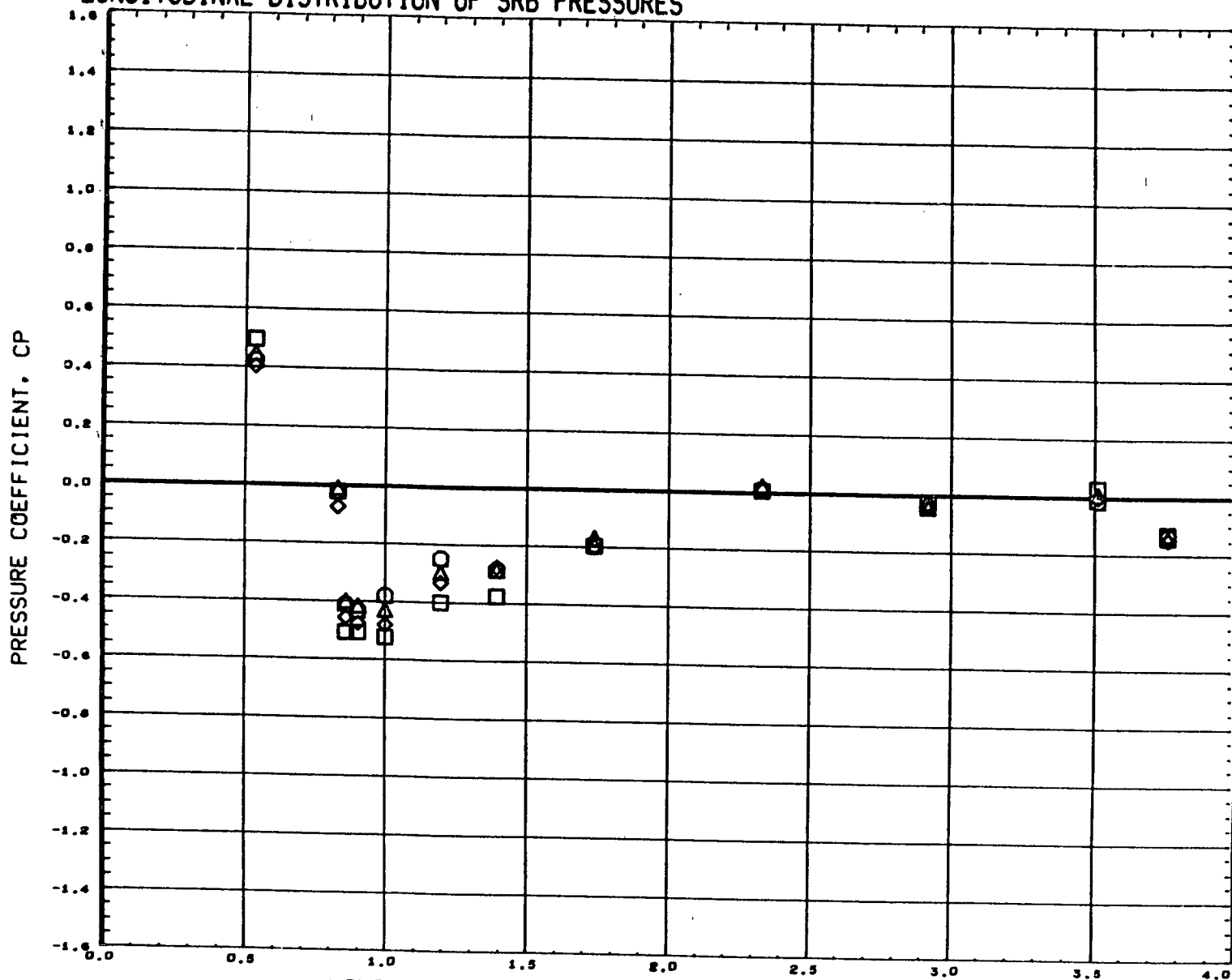
PARAMETRIC VALUES	
ALPHA	0.000
SRBGAP	0.025
ORBINC	- 1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R703SM)

PAGE 545

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	120,000	4,000	1,200
△	135,000		
◇	150,000		
□	165,000		

PARAMETRIC VALUES	
ALPHA	0,000 ORBINC - 1,500
SRBGAP	0,025

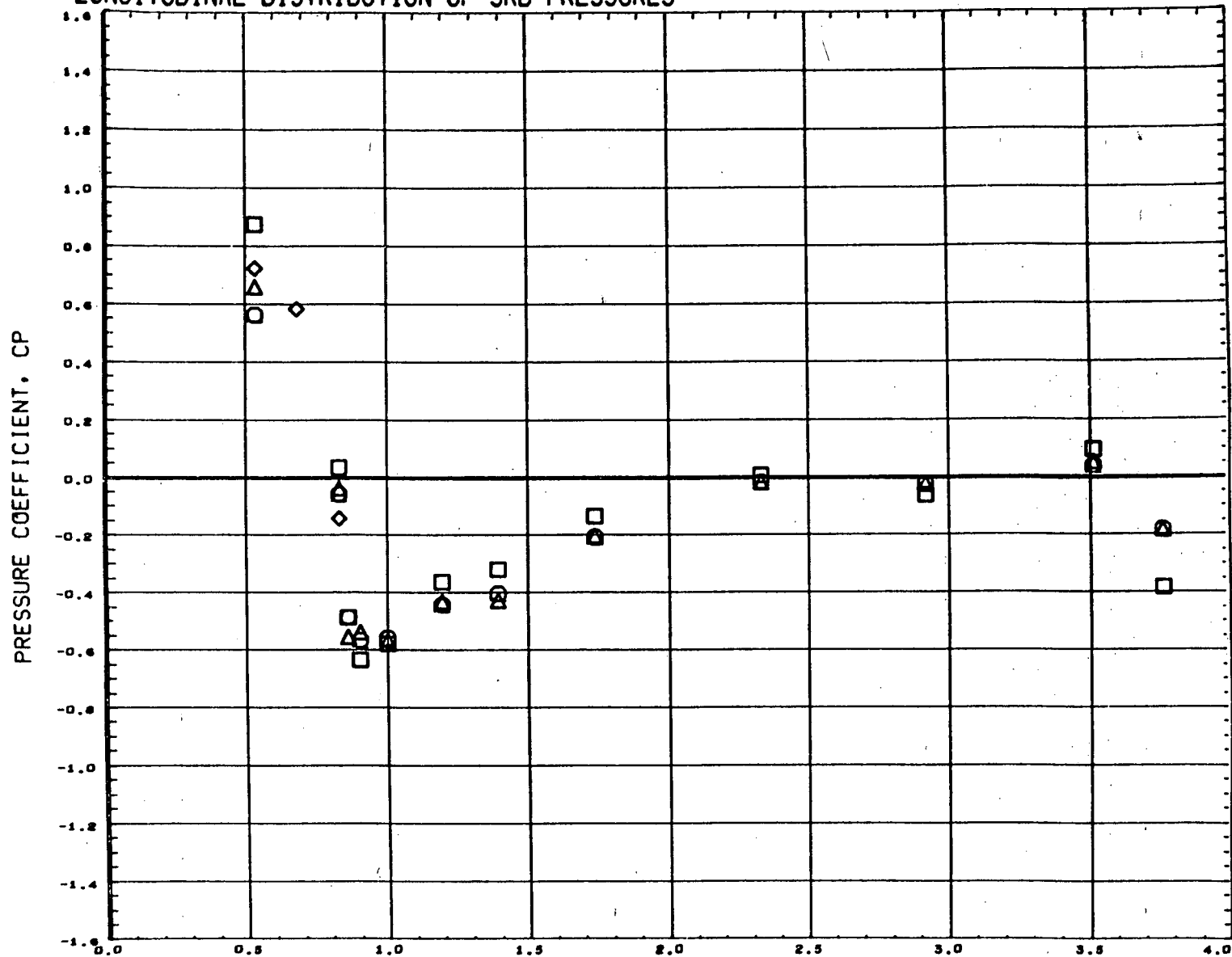
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R703SM)

PAGE 546

27

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

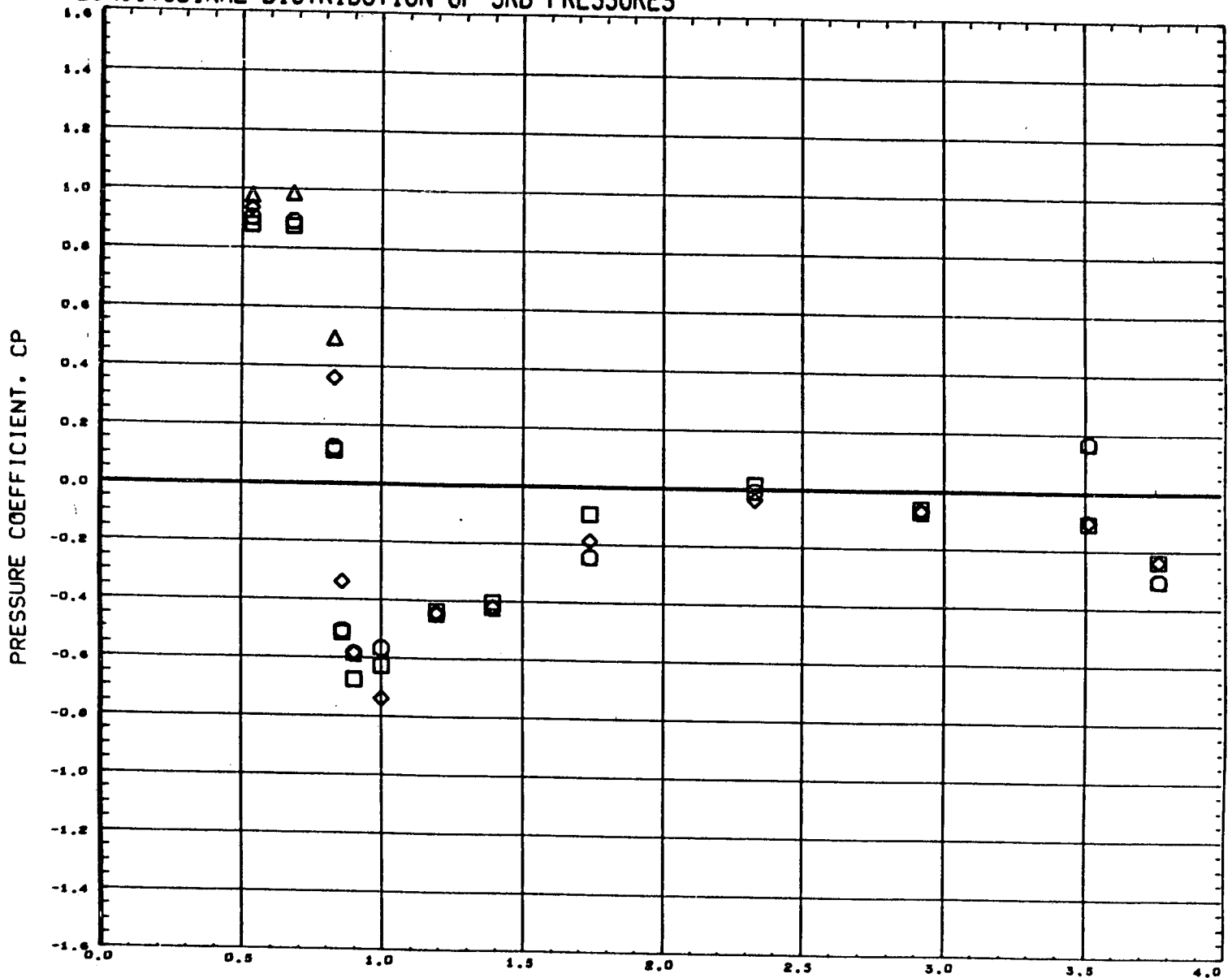


SYMBOL	PHI	BETA	MACH
○	160.000	4.000	1.200
△	195.000		
◇	210.000		
□	225.000		

PARAMETRIC VALUES	
ALPHA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	240.000	4.000	1.200
◇	255.000		
◇	270.000		
□	285.000		

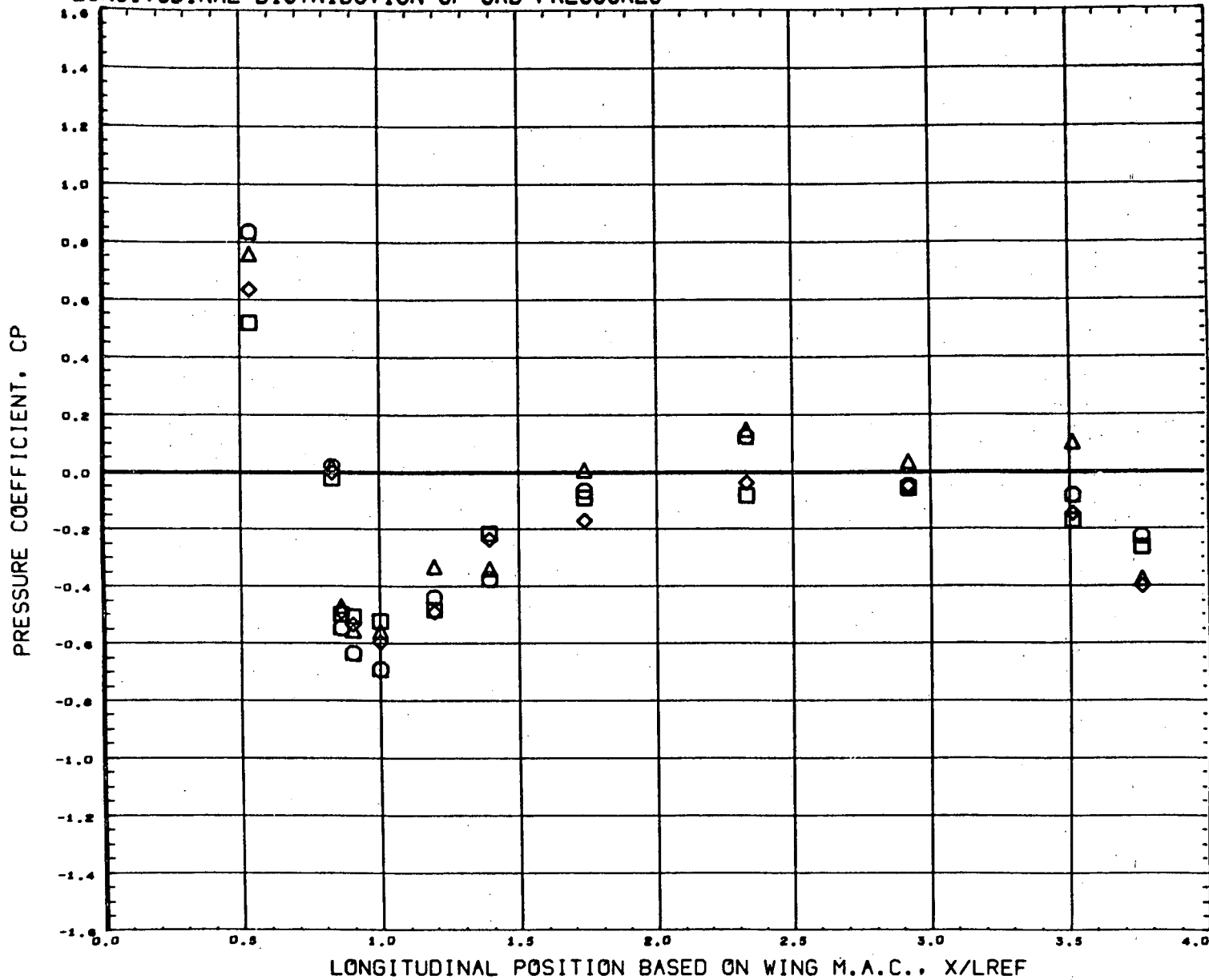
PARAMETRIC VALUES	
ALPHA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703SM)

PAGE 548

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

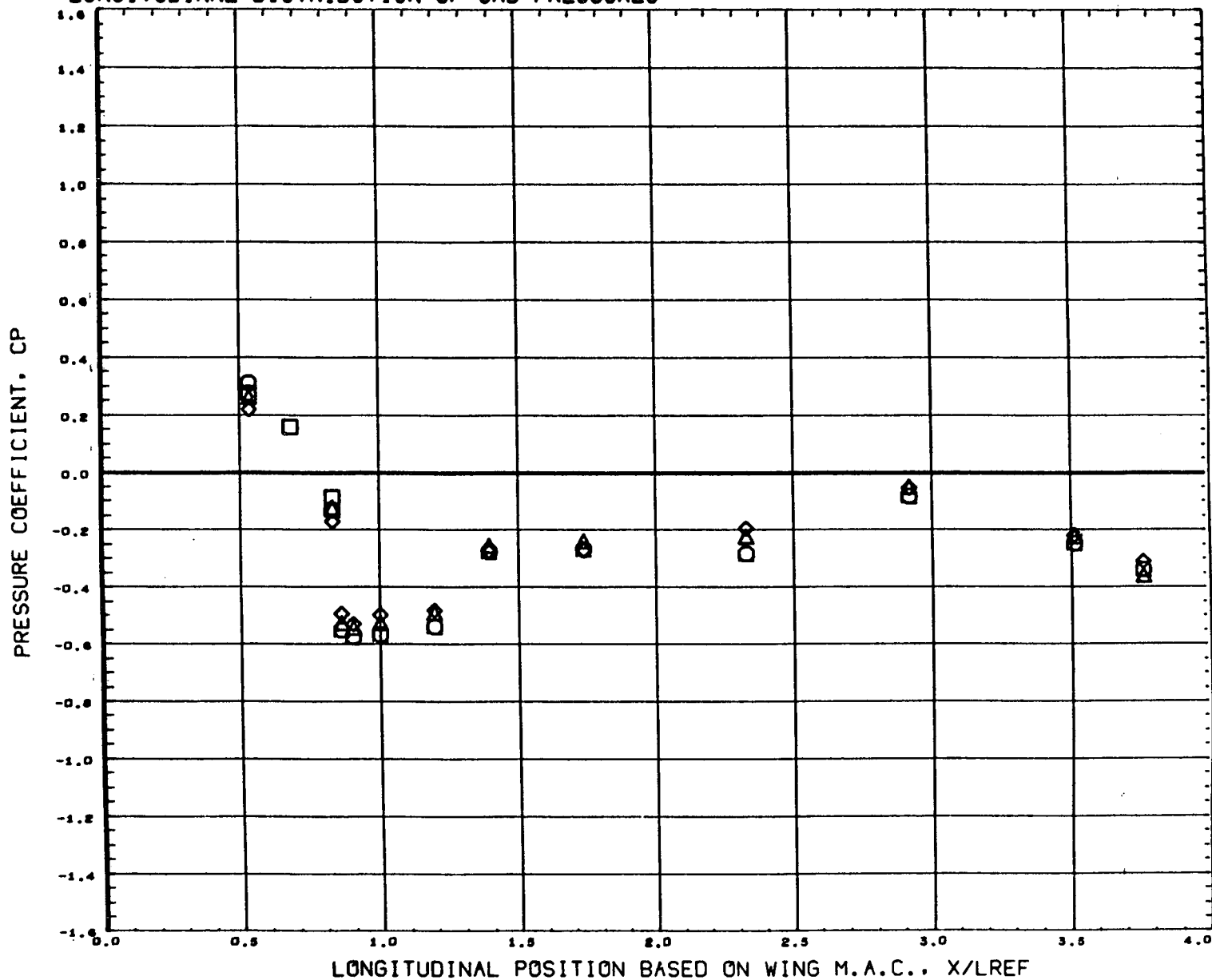


SYMBOL	PHI	BETA	MACH
○	300,000	4.000	1.200
△	315,000		
◇	330,000		
□	345,000		

PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

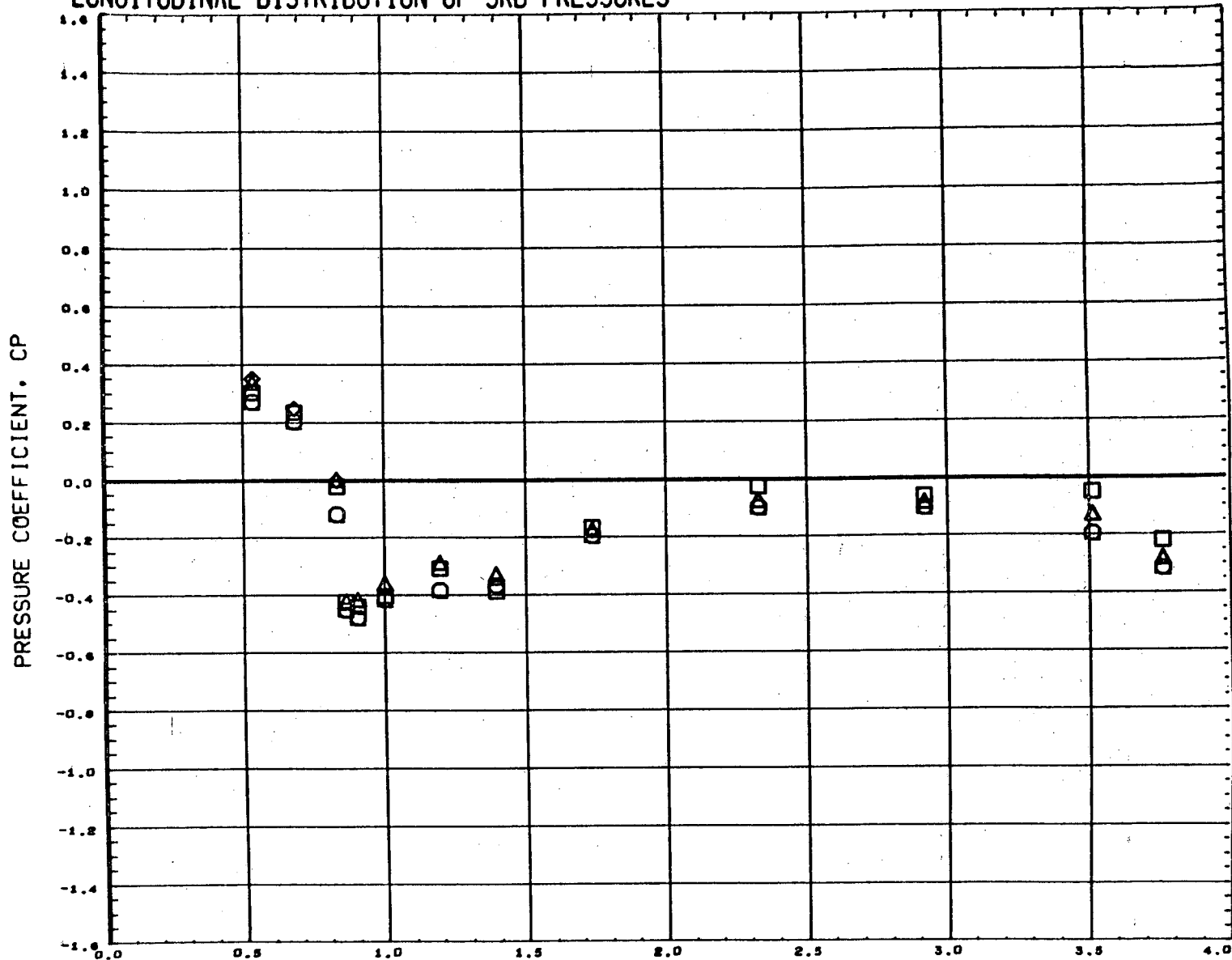
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	10.000	1.200	ALPHA	0.000 ORBINC - 1.500
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

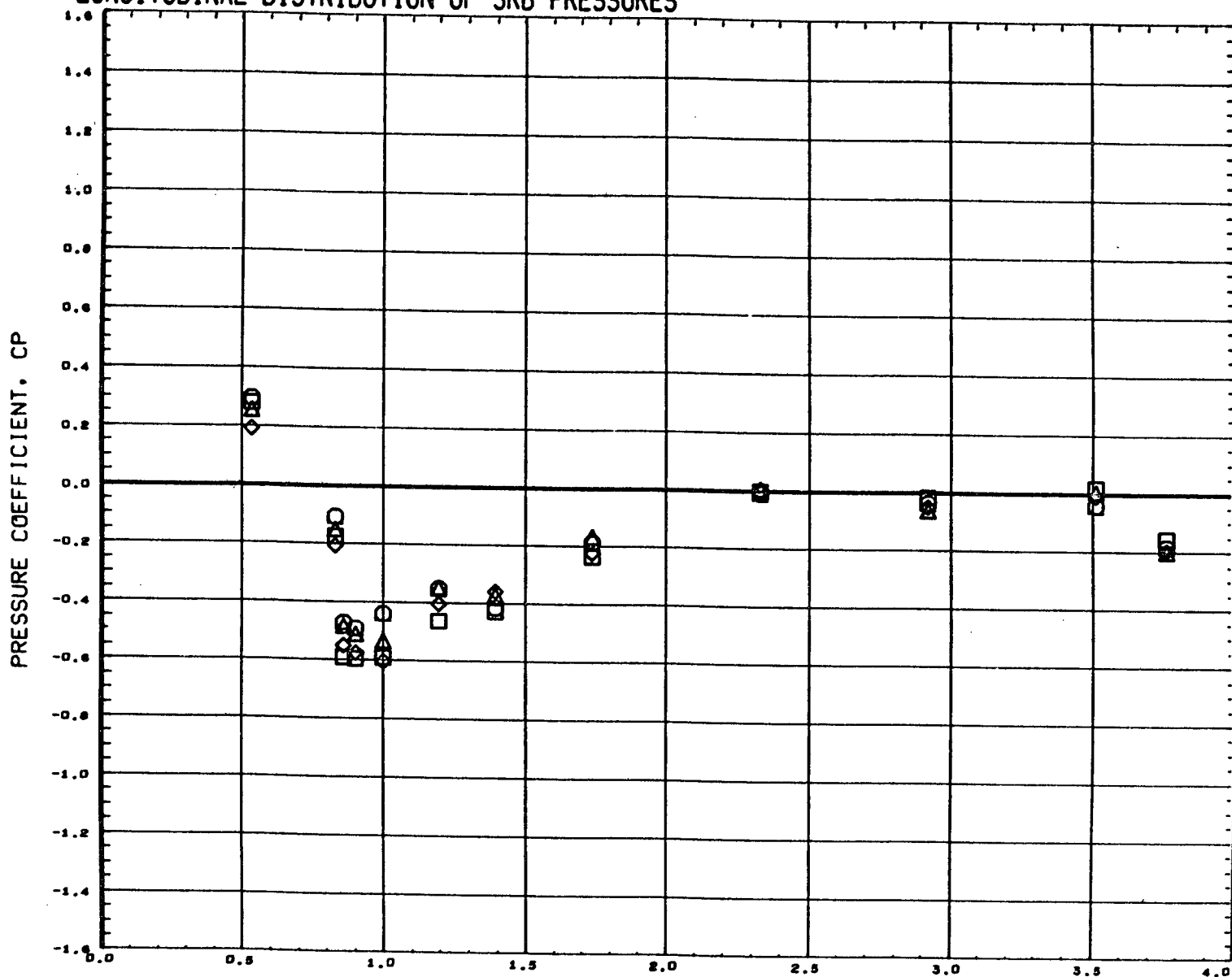


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	60.000	10.000	1.200	ALPHA	0.000	ORBINC - 1.500
△	75.000			SRBGAP	0.025	
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	120,000	10,000	1.200
△	135,000		
◇	150,000		
□	165,000		

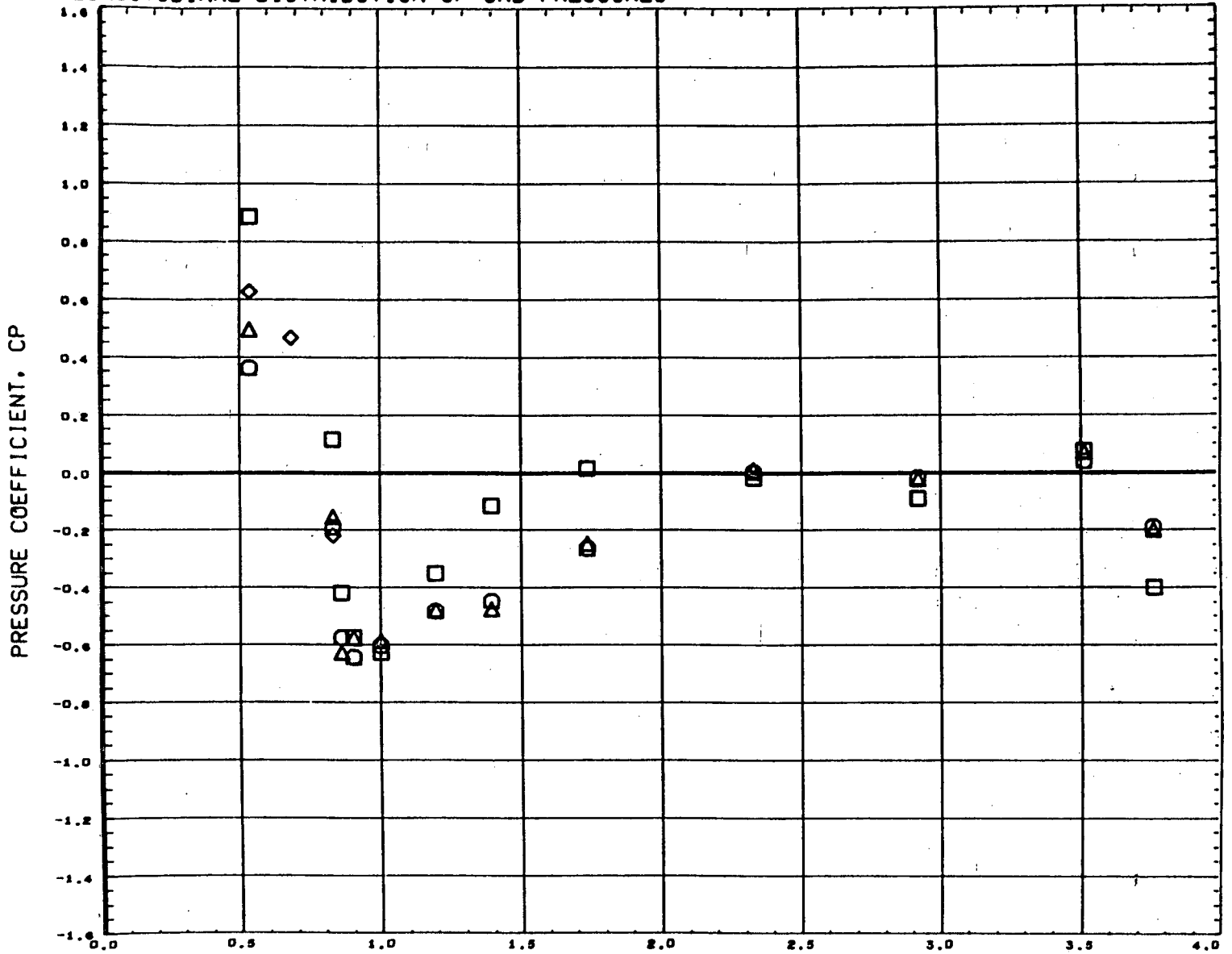
PARAMETRIC VALUES	
ALPHA	0.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703SM)

PAGE 552

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



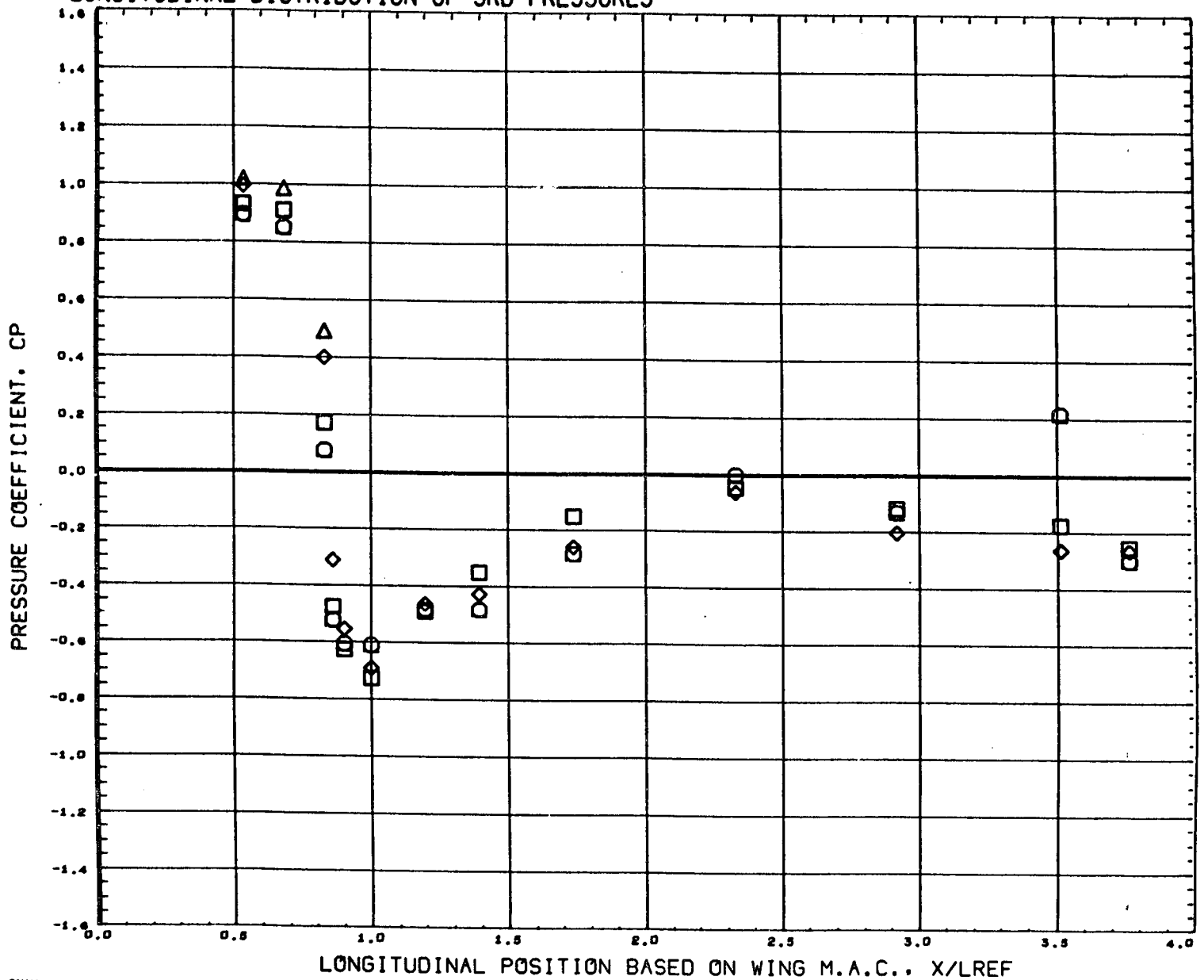
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	160.000	10.000	1.200
△	195.000		
◇	210.000		
□	225.000		

PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

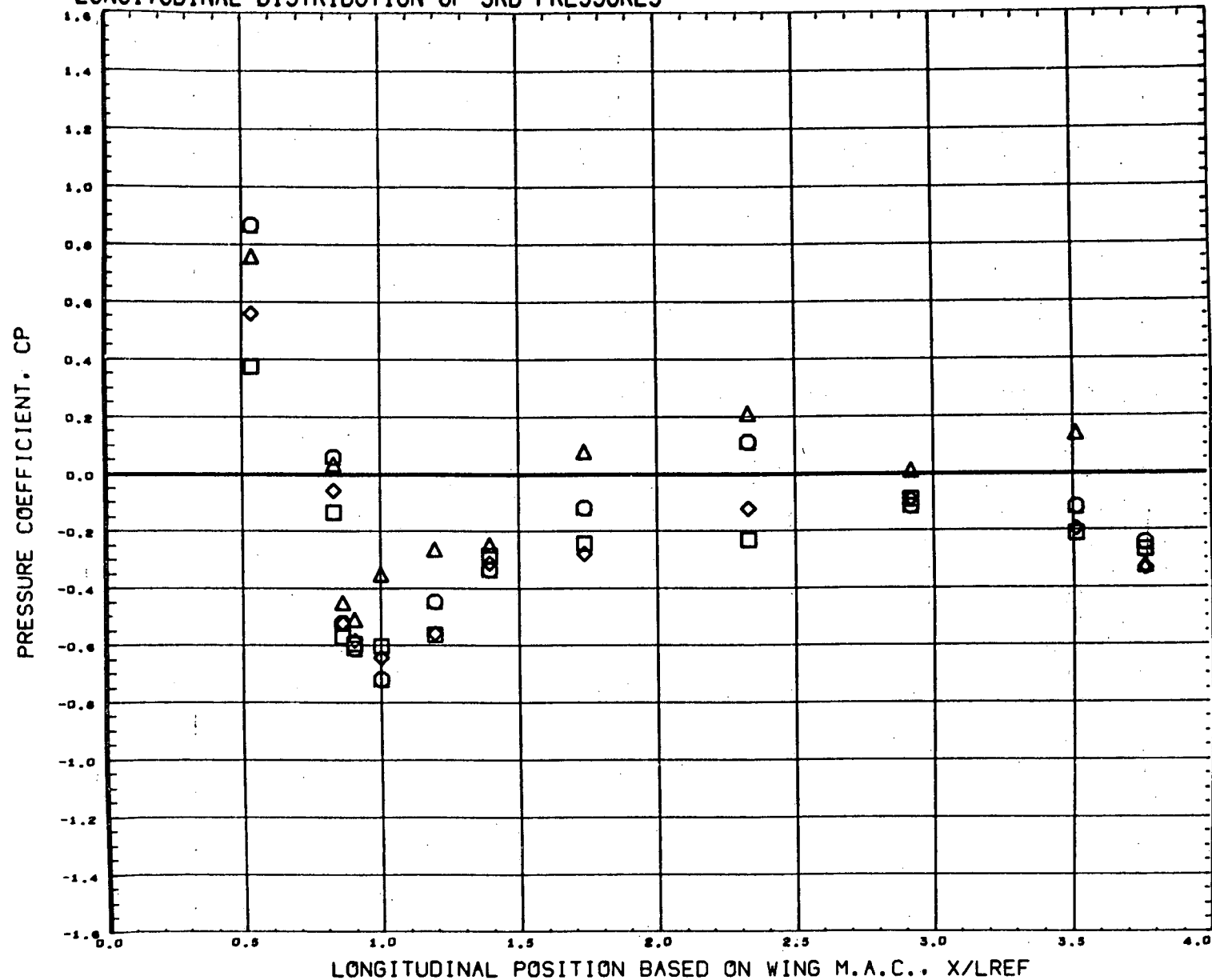
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	240,000	10,000	1.200	ALPHA 0,000 ORBINC - 1,500
△	255,000			SRBCAP 0,025
◇	270,000			
□	285,000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

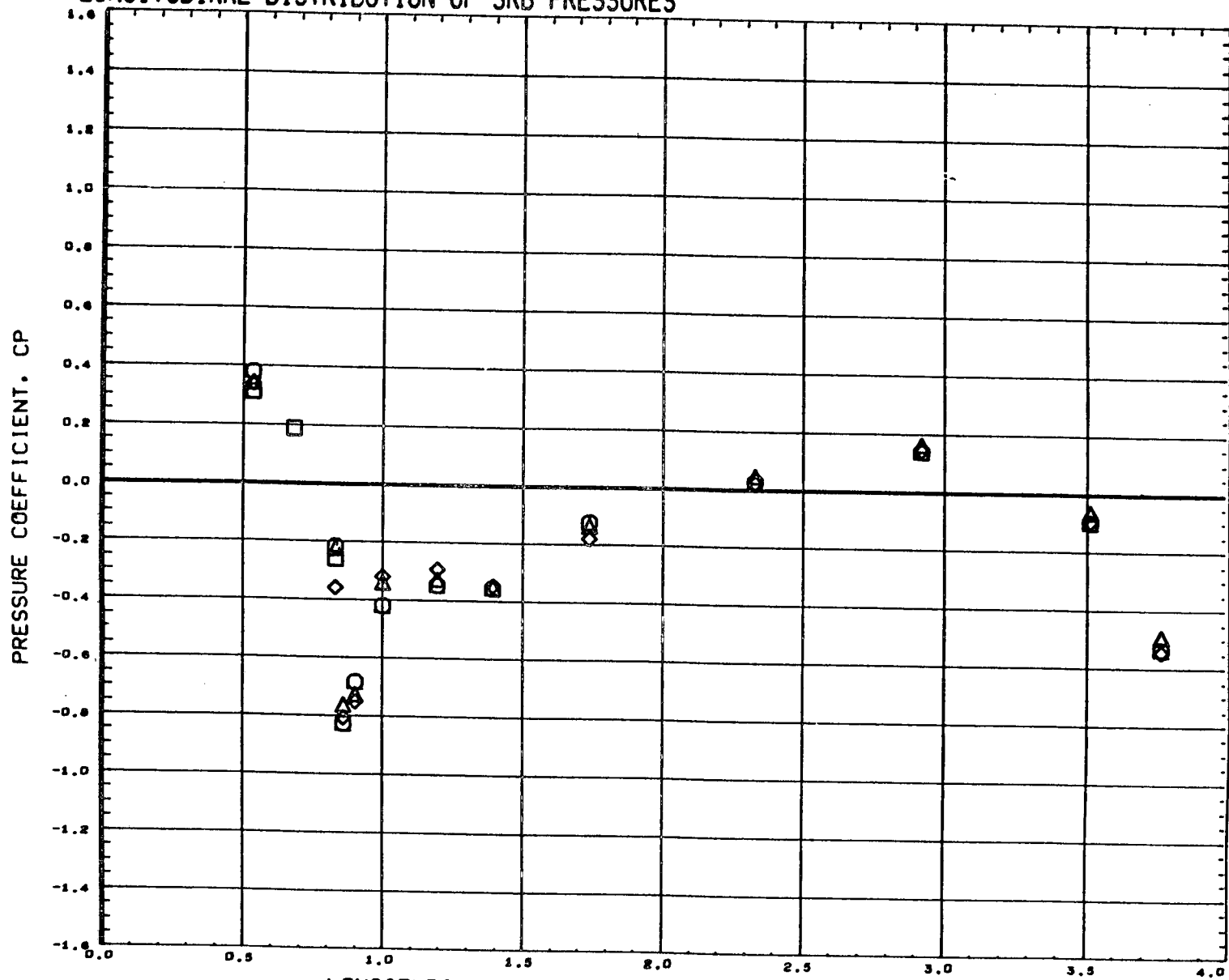


SYMBOL	PARAMETRIC VALUES		
	PHI	BETA	MACH
○	300,000	10,000	1,200
△	315,000		
◇	330,000		
□	345,000		

ALPHA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	- 10.000	0.950
△	15.000		
◇	30.000		
□	45.000		

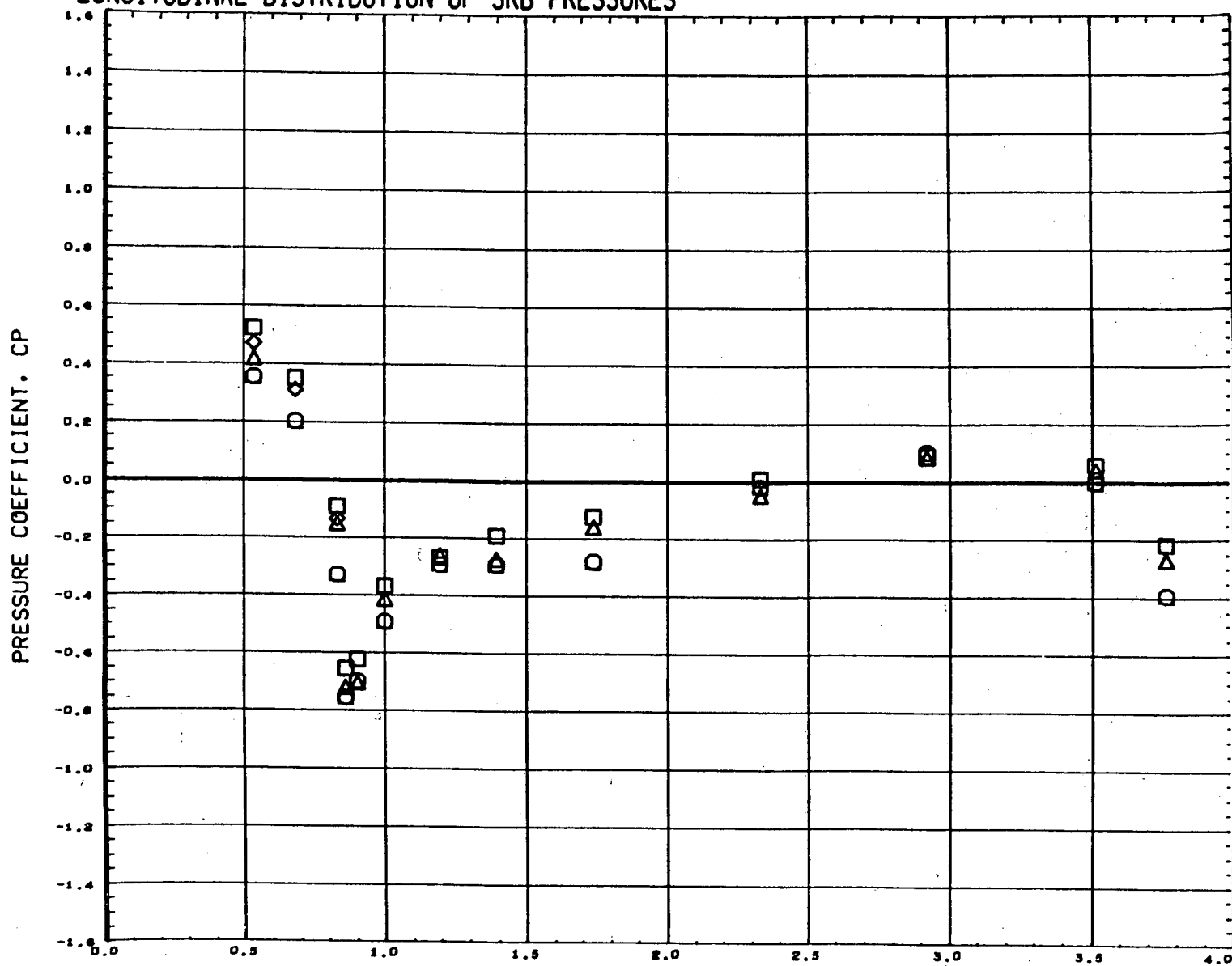
PARAMETRIC VALUES	
ALPHA	6.000
SRBGAP	0.025
ORBINC	- 1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 556

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

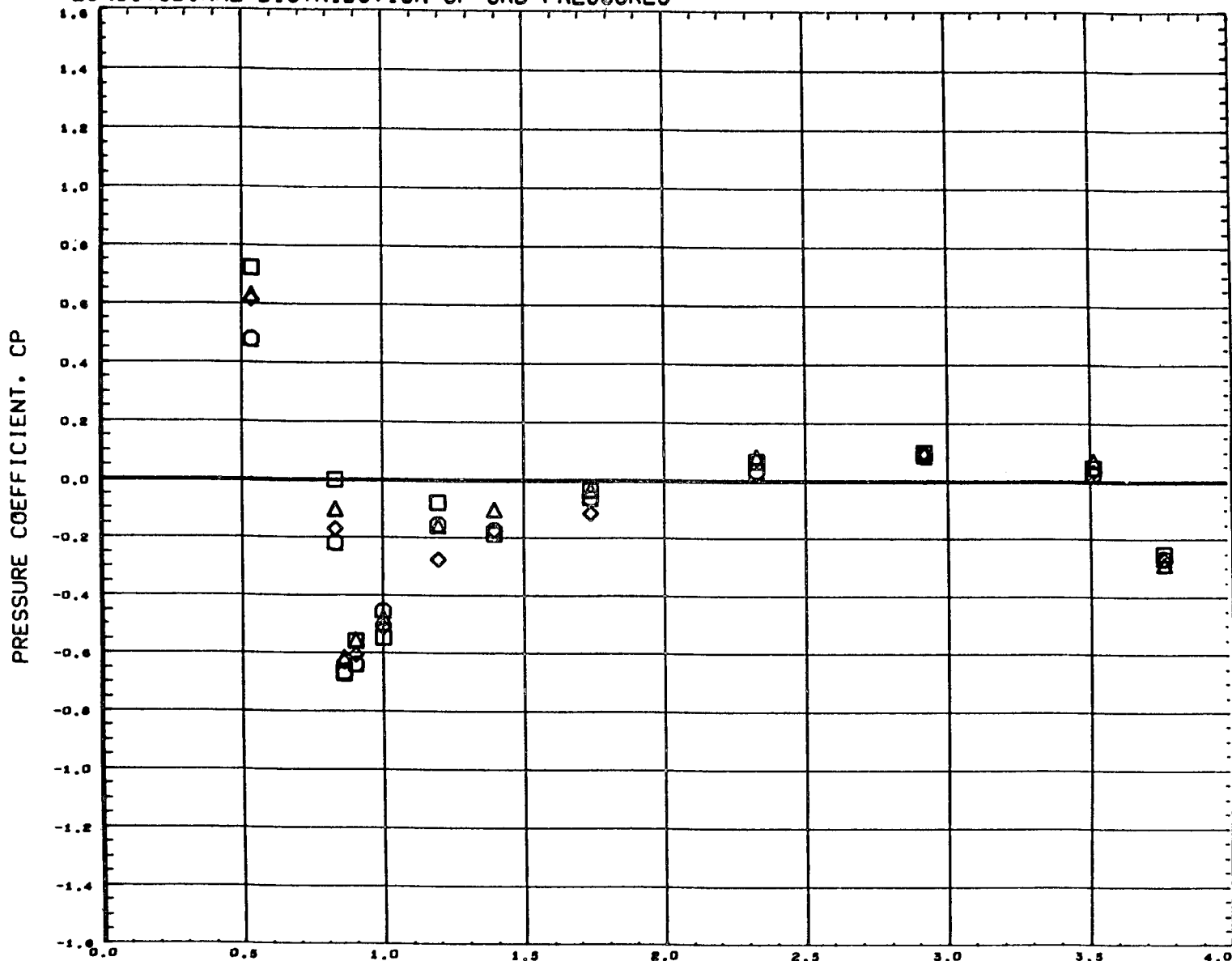


SYMBOL	PHI	BETA	MACH
○	60,000	- 10.000	0.950
△	75,000		
◇	90,000		
□	105,000		

PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



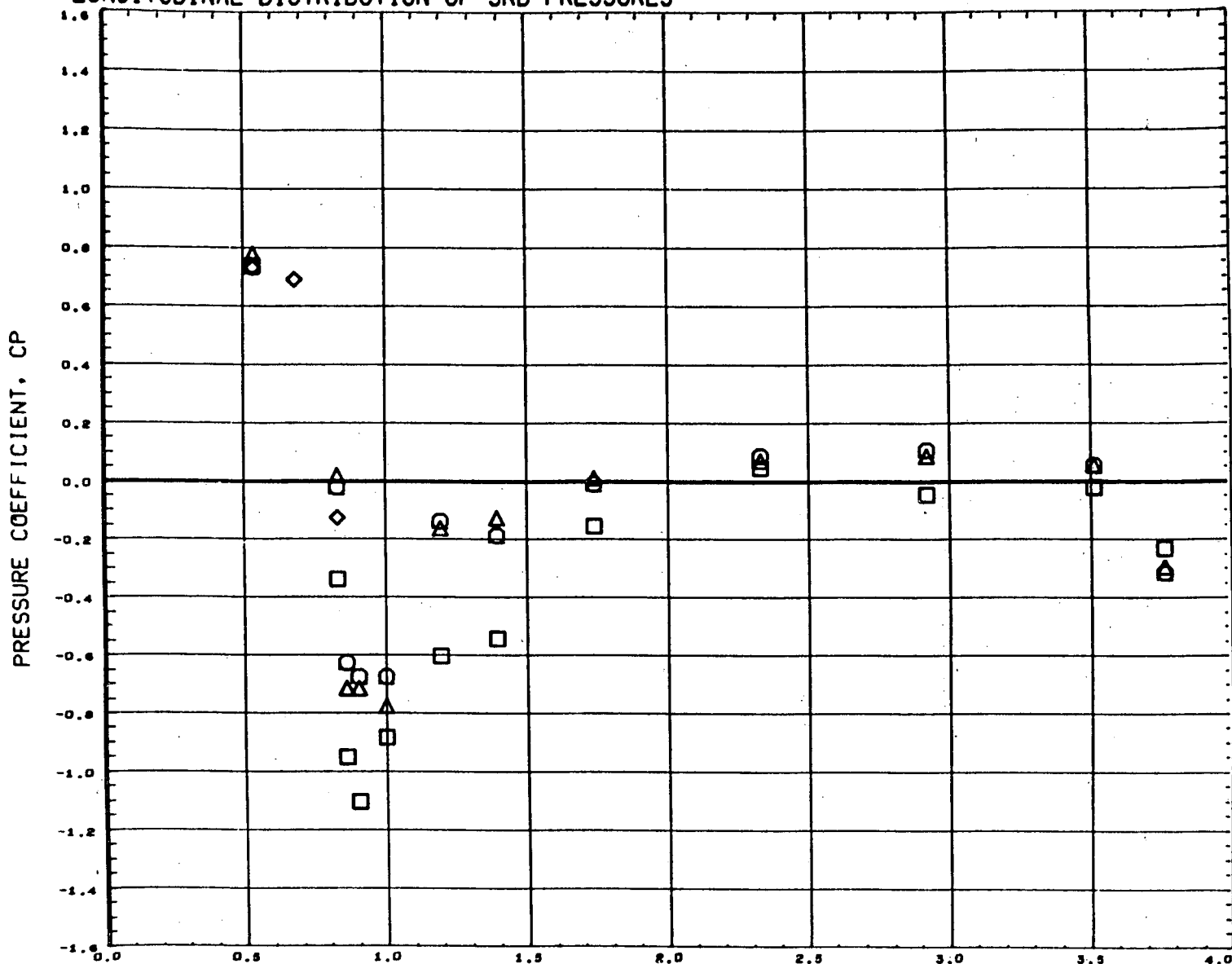
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	120.000	- 10.000	0.950
△	135.000		
◇	150.000		
□	165.000		

PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	180.000	- 10.000	0.950	ALPHA	6.000
△	195.000			SRBGAP	0.025
◇	210.000				
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369





MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704SM)

PAGE 559

B

This graph plots the Pressure Coefficient (C_p) against the Longitudinal Position based on Wing Mean Aerodynamic Chord (M.A.C.), X/L_{REF} . The y-axis ranges from -1.6 to 1.6, and the x-axis ranges from 0.0 to 4.0. Data points are categorized by location: LEADING EDGE (diamonds), UPPER SURFACE (squares), LOWER SURFACE (circles), and TRAILING EDGE (triangles). The leading edge is at $X/L_{REF} \approx 0.5$. The upper surface data points are clustered between $X/L_{REF} = 0.5$ and 1.0 . The lower surface data points are clustered between $X/L_{REF} = 0.8$ and 1.5 . The trailing edge is at $X/L_{REF} \approx 3.8$. The pressure coefficient is generally positive on the upper surface and negative on the lower surface, indicating lift.

Location	X/L_{REF}	C_p
Leading Edge	0.5	0.48
Upper Surface	0.5	0.42
Upper Surface	0.5	0.72
Upper Surface	0.6	0.35
Upper Surface	0.6	0.80
Upper Surface	0.8	0.12
Upper Surface	1.0	-0.52
Upper Surface	1.2	-0.45
Upper Surface	1.4	-0.48
Upper Surface	1.7	-0.18
Upper Surface	2.3	0.18
Upper Surface	2.9	0.18
Upper Surface	3.8	0.12
Lower Surface	0.8	-0.32
Lower Surface	0.8	-0.58
Lower Surface	0.8	-0.82
Lower Surface	0.9	-0.68
Lower Surface	0.9	-0.72
Lower Surface	0.9	-0.95
Lower Surface	1.0	-0.62
Lower Surface	1.0	-0.82
Lower Surface	1.2	-0.45
Lower Surface	1.4	-0.38
Lower Surface	1.7	-0.10
Lower Surface	1.7	-0.12
Trailing Edge	3.8	-0.28

SYMBOL	PHI	BETA	MACH
	240.000	- 10.000	0.950
	255.000		
	270.000		
	285.000		

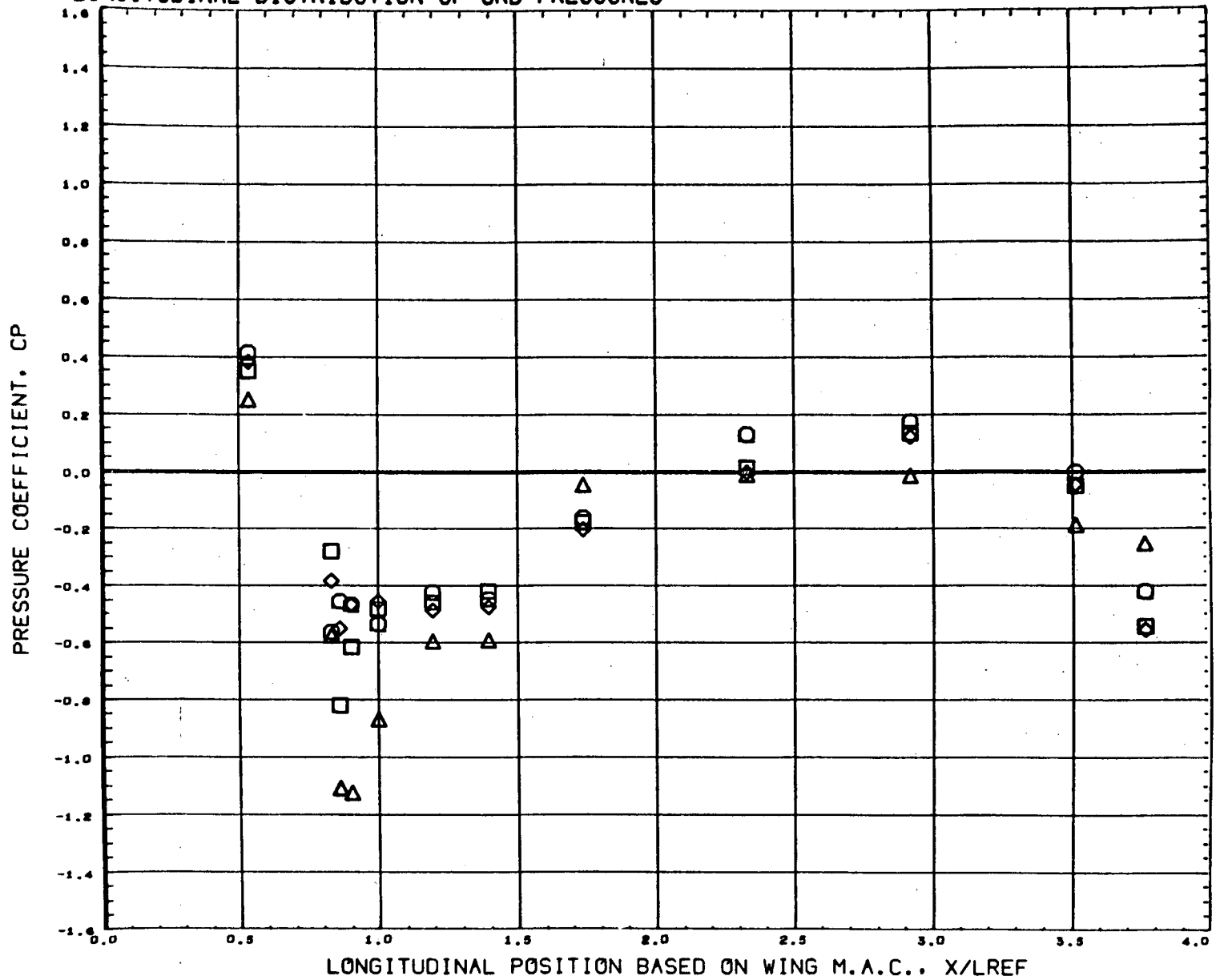
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PARAMETRIC VALUES
ALPHA      6.000   ORBINC  ~  1.500
SRBGAP     0.025

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NOTE- BRB NOSE LOCATED AT $X/LREF = .369$

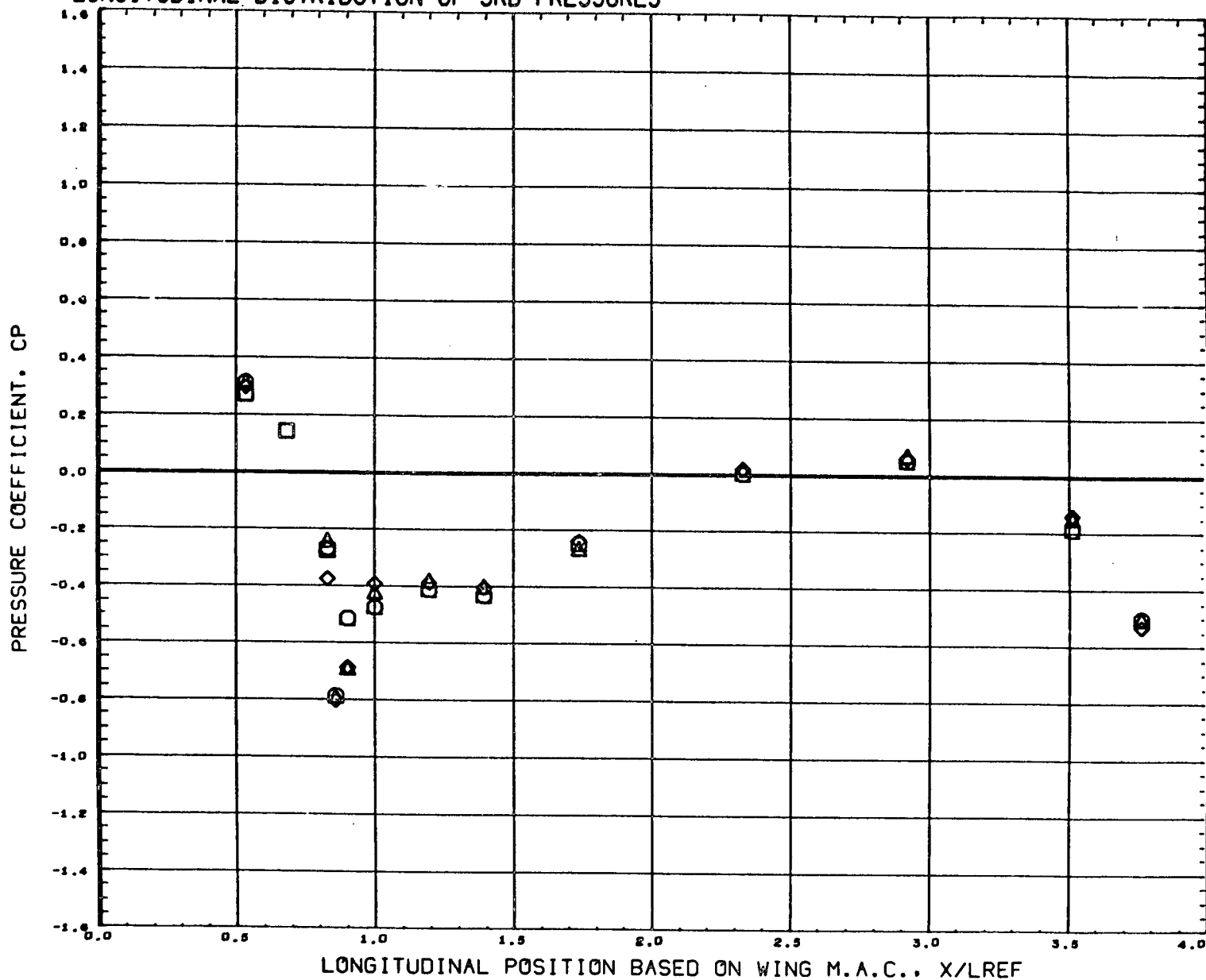
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	300.000	- 10.000	0.950	ALPHA	6.000
△	315.000			SRBGAP	0.025
◇	330.000				
□	345.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

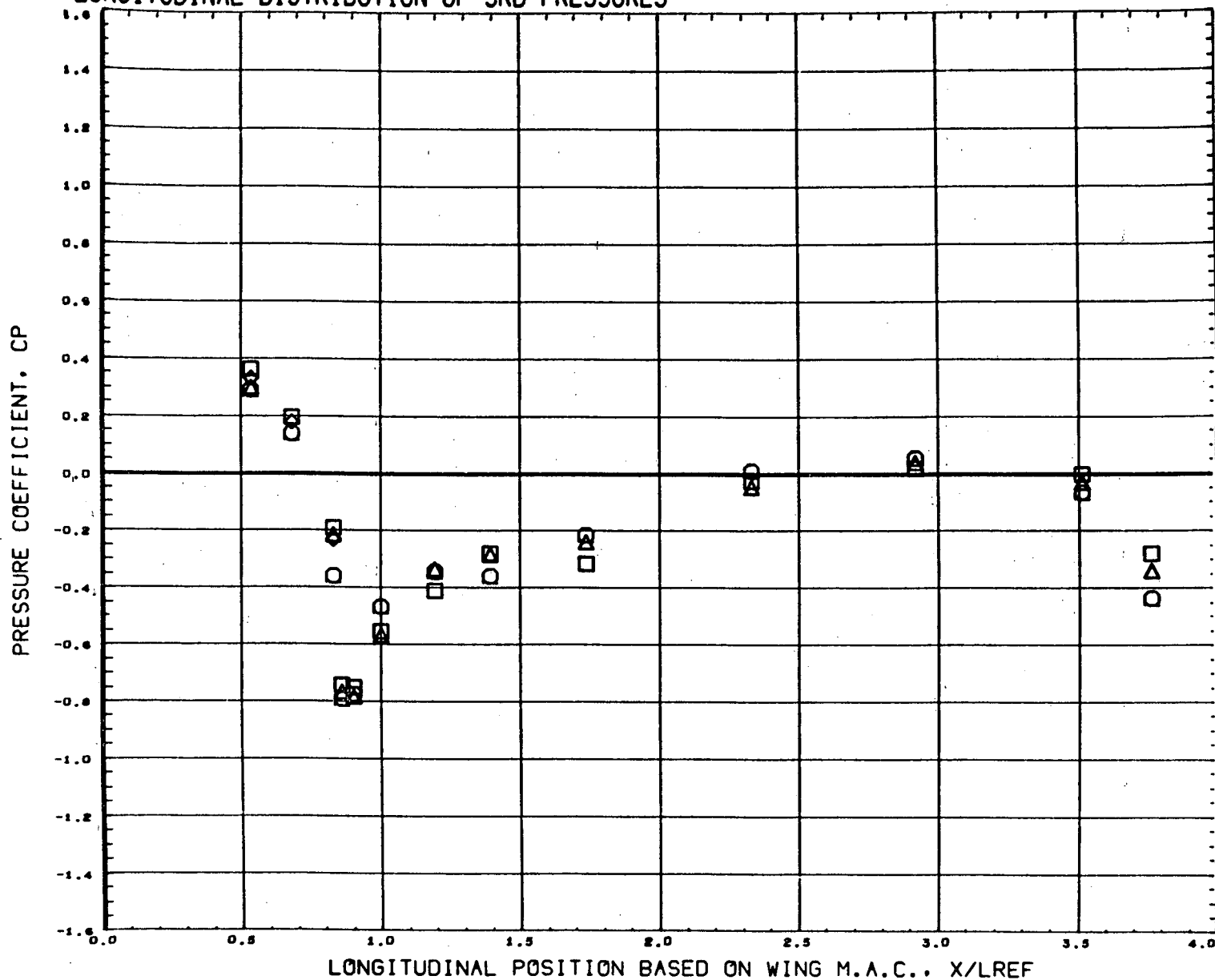
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	0.000	- 4.000	0.950	ALPHA	6.000	ORBINC - 1.500
△	15.000			SRBGAP	0.025	
◇	30.000					
□	45.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

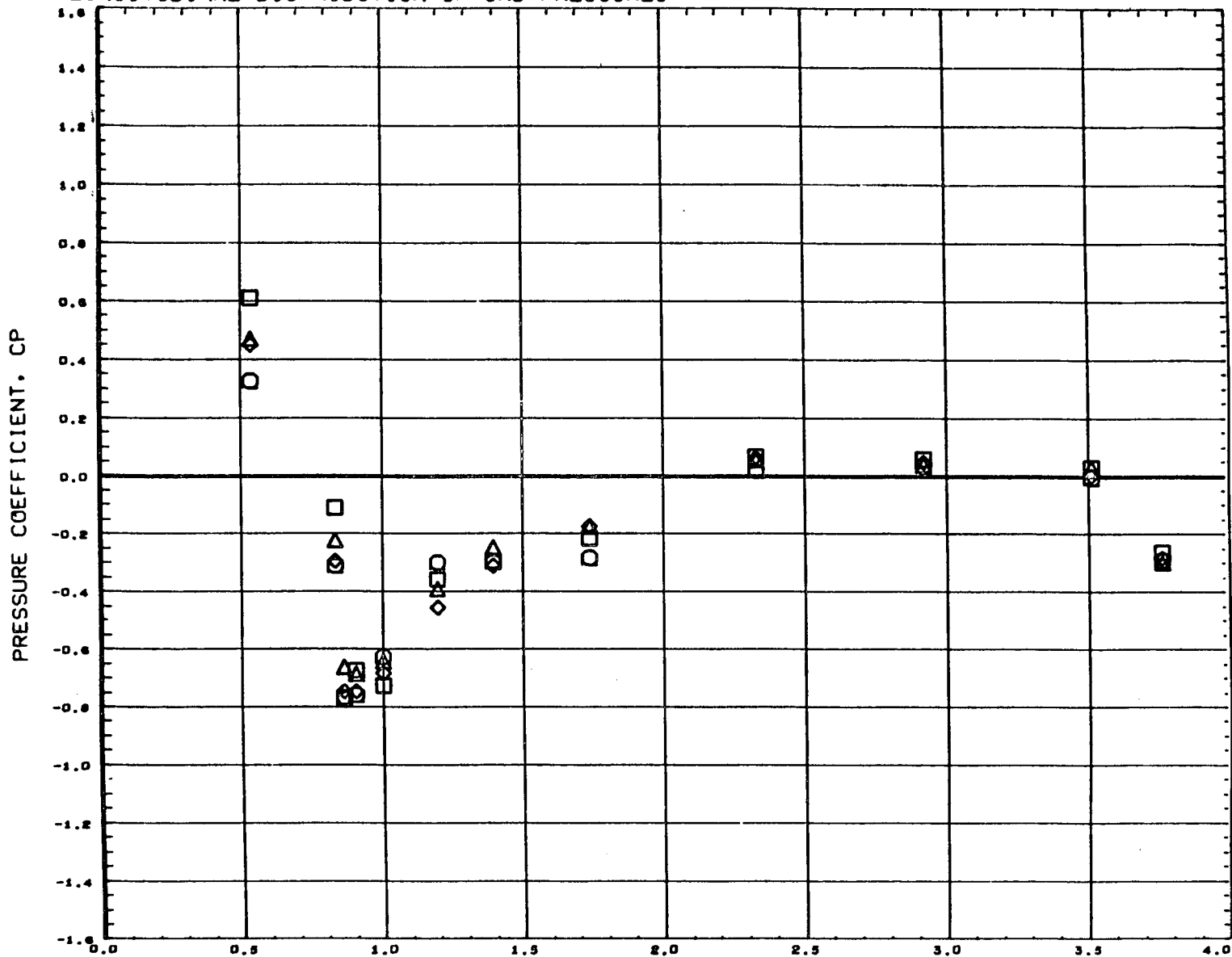
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	60.000	- 4.000	0.950	ALPHA	6.000
△	75.000			SRBCAP	0.025
◇	90.000			ORBINC	- 1.500
□	105.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

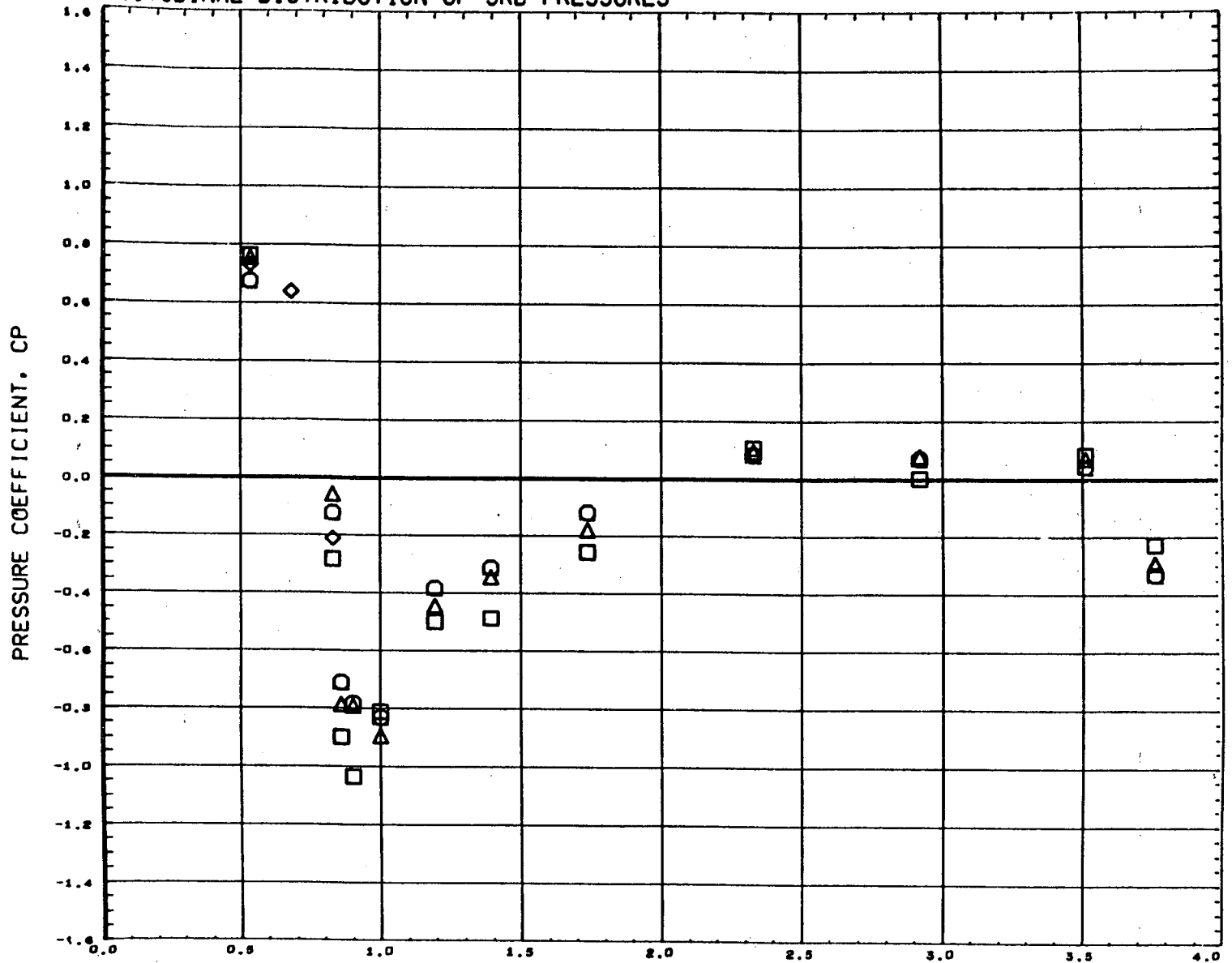


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	120,000	- 4,000	0.950	ALPHA	6.000	ORBINC - 1.500
△	135,000			SRBGAP	0.025	
◇	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

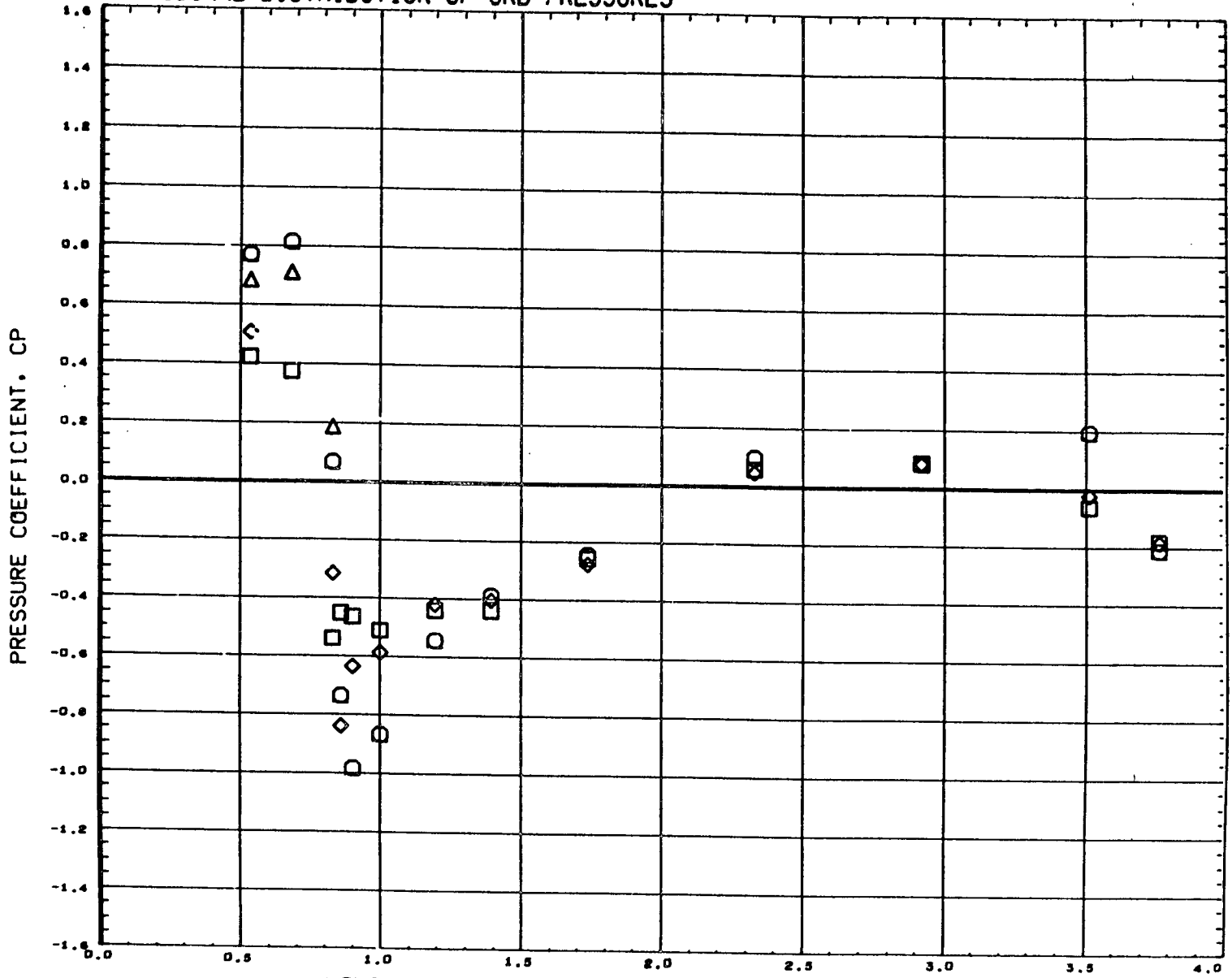


SYMBOL PHI BETA MACH
○ 180.000 4.000 0.950
△ 195.000
◇ 210.000
□ 225.000

PARAMETRIC VALUES
ALPHA 6.000 ORBINC 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

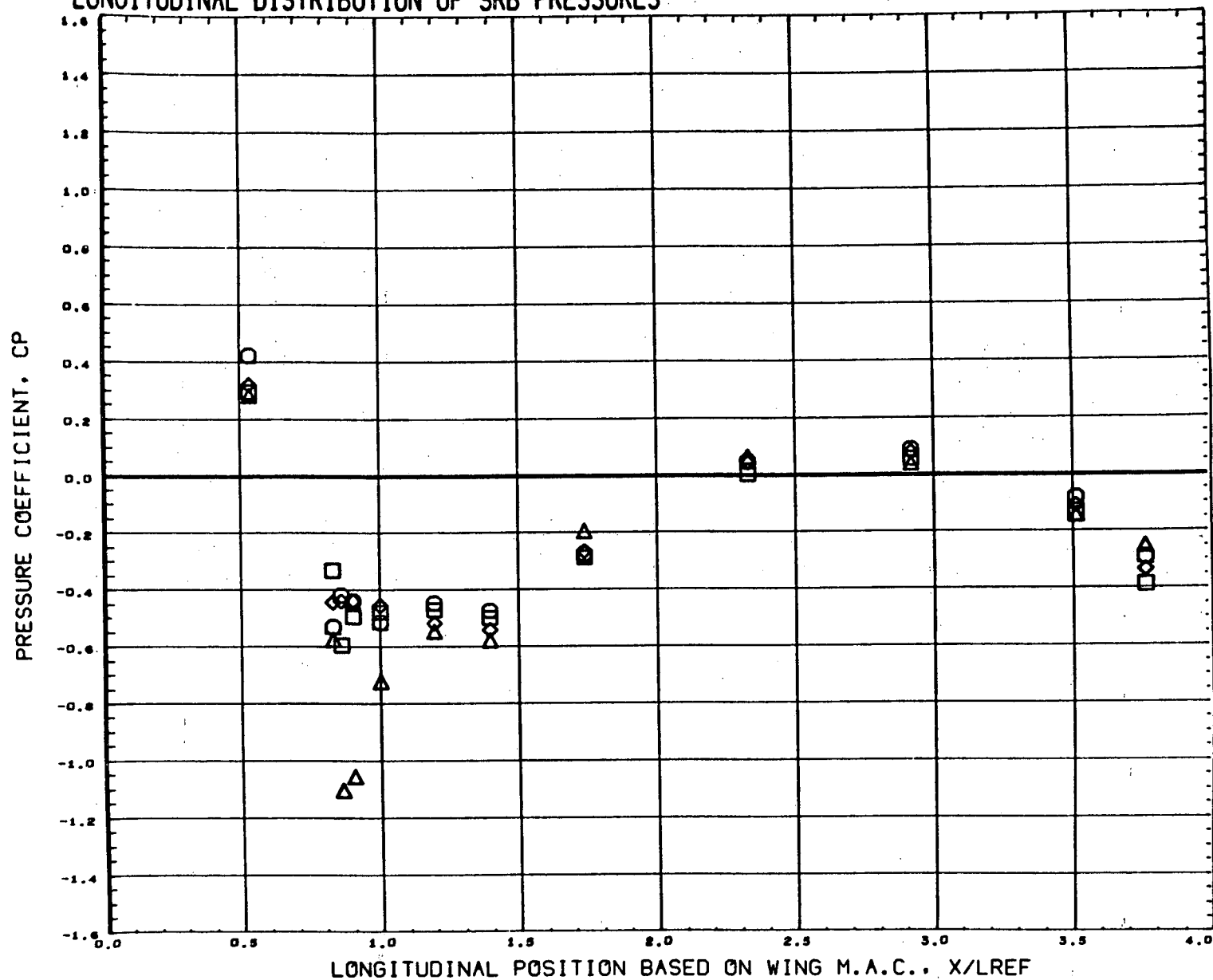


SYMBOL	PARAMETRIC VALUES		
	PHI	BETA	MACH
○	240.000	- 4.000	0.950
△	255.000		
◇	270.000		
□	285.000		

ALPHA	6.000	ORBINC	- 1.500
SRBGAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

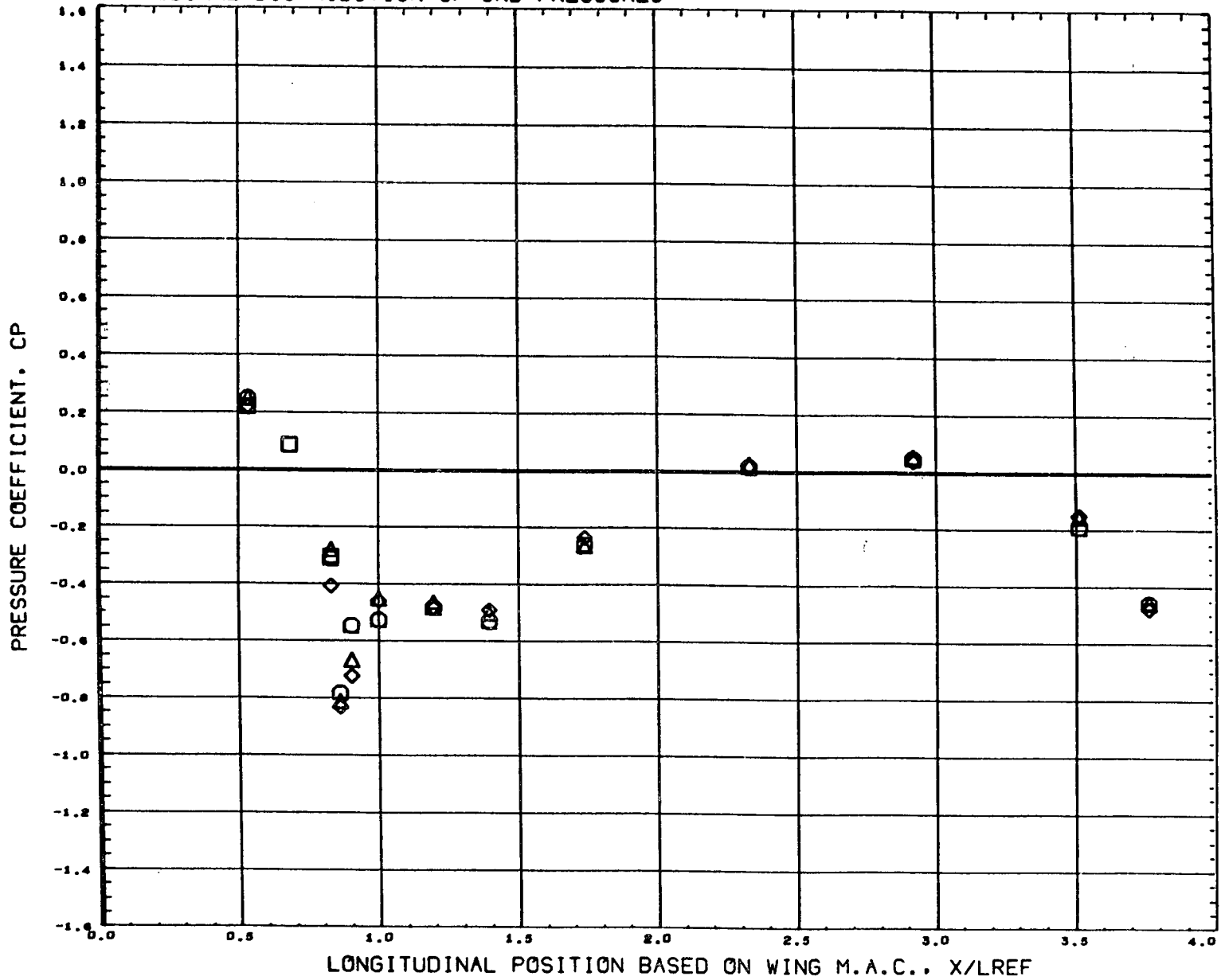


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	300.000	- 4.000	0.950	ALPHA	6.000
△	315.000			SRBCAP	0.025
◇	330.000			ORBINC	- 1.500
□	345.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

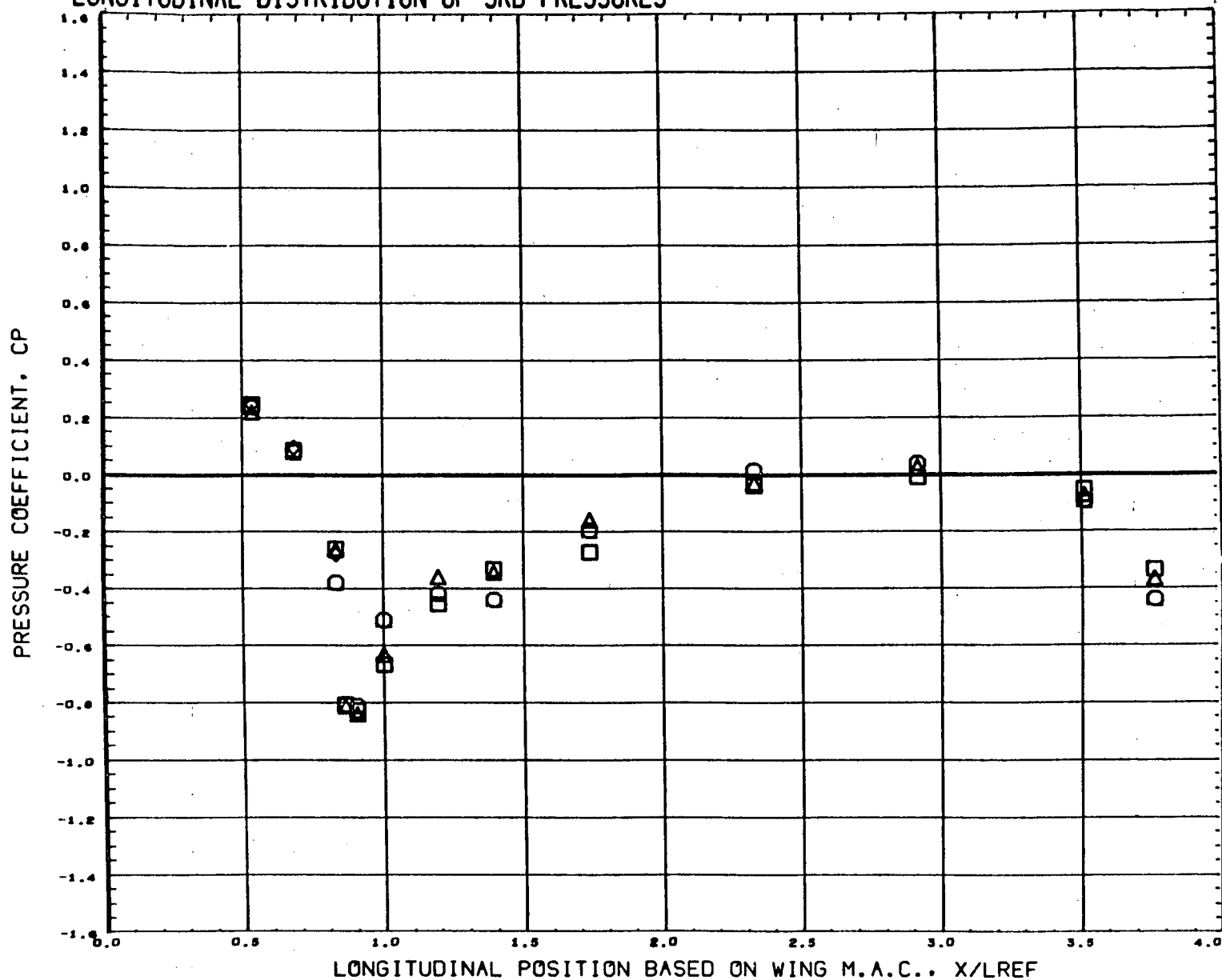
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	0.950	ALPHA	6.000
△	15.000			SRBCAP	0.025
◇	30.000			ORBINC	- 1.500
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

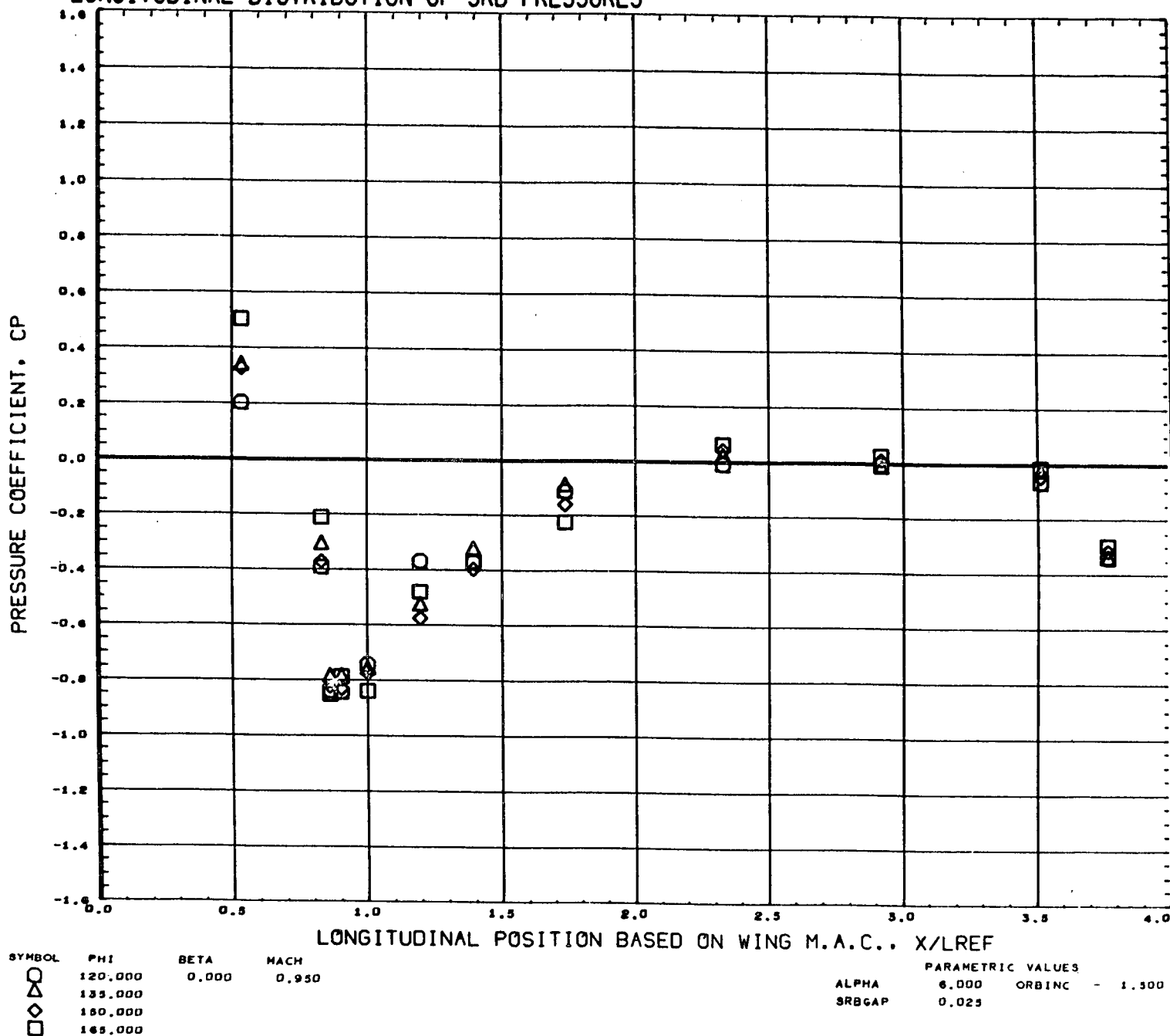


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	60.000	0.000	0.950	ALPHA 6.000 ORBINC - 1.500
△	75.000			SRBGAP 0.025
◇	90.000			
□	105.000			

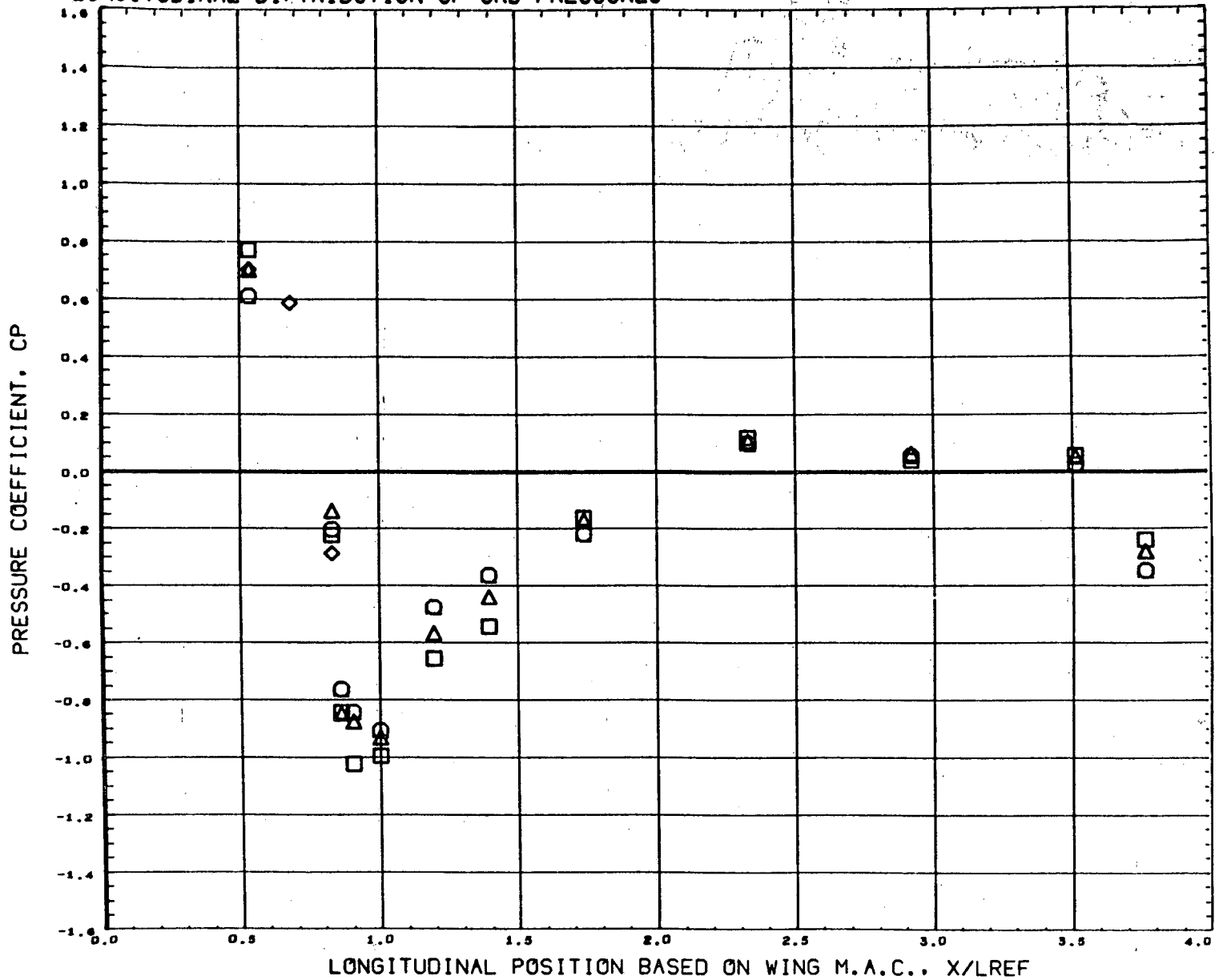
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

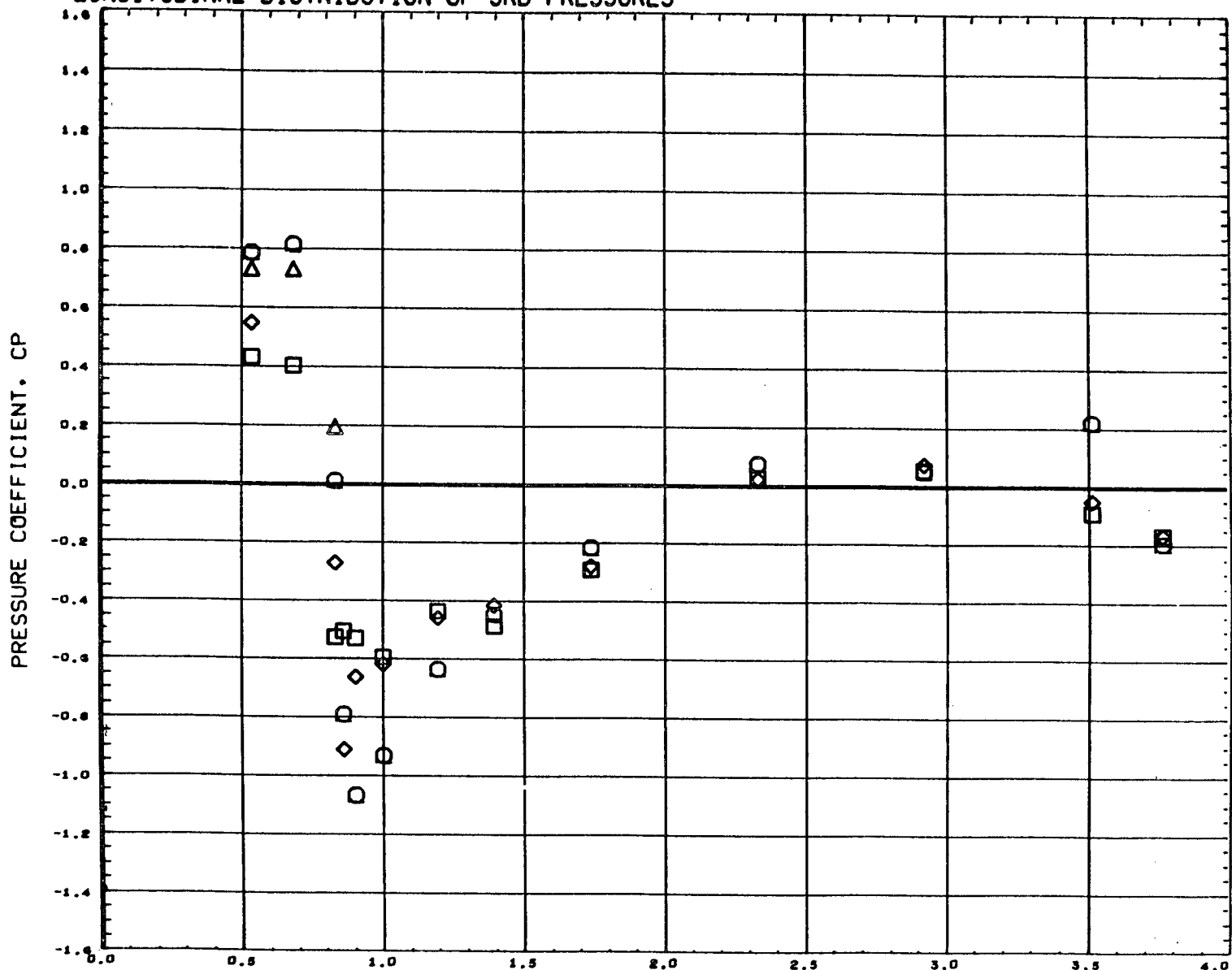
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	180.000	0.000	0.950	ALPHA	6.000
△	195.000			SRBGAP	0.025
◇	210.000				
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	240.000	0.000	0.950
△	255.000		
◇	270.000		
□	285.000		

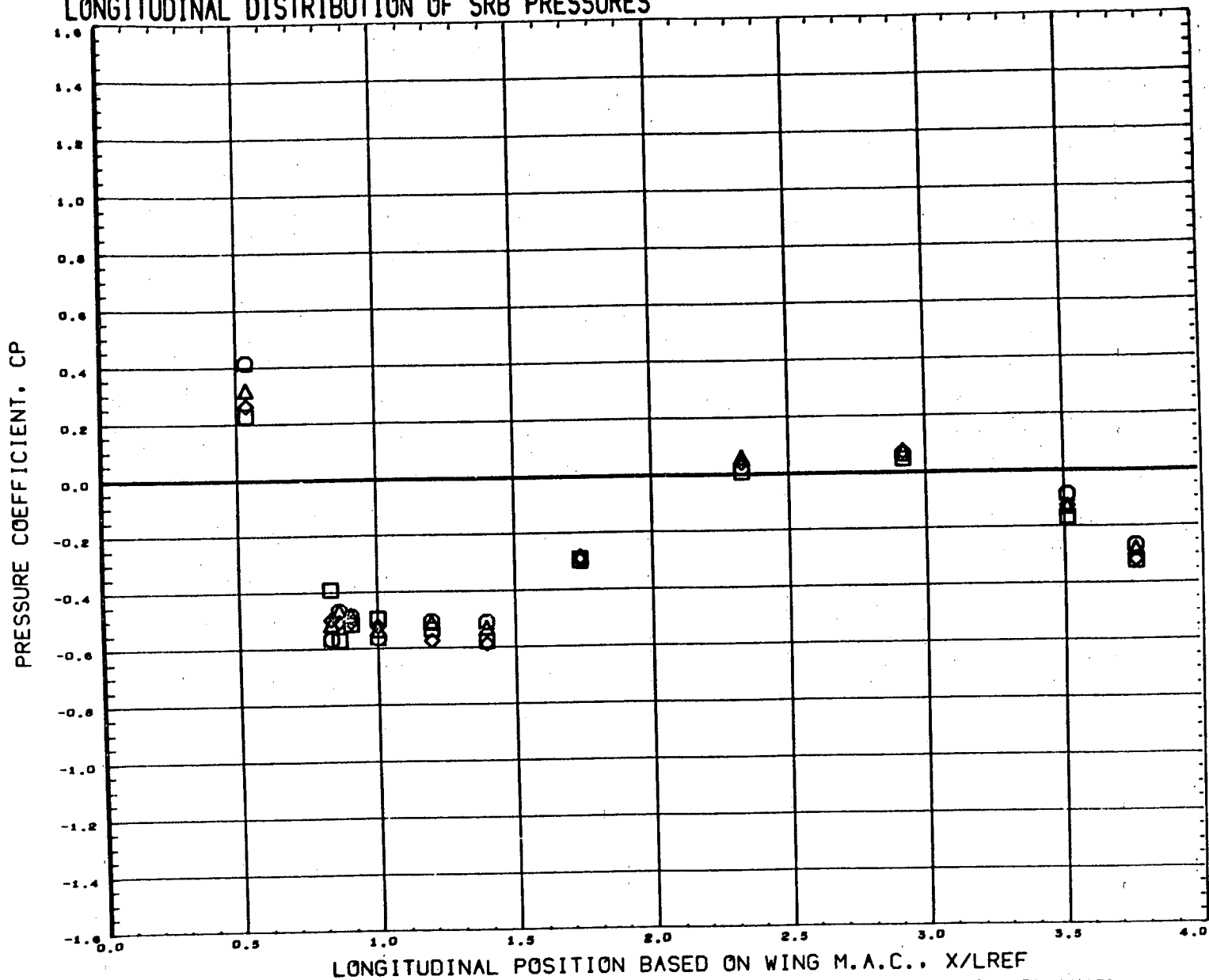
PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 572

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	300.000	0.000	0.950
△	315.000		
◇	330.000		
□	345.000		

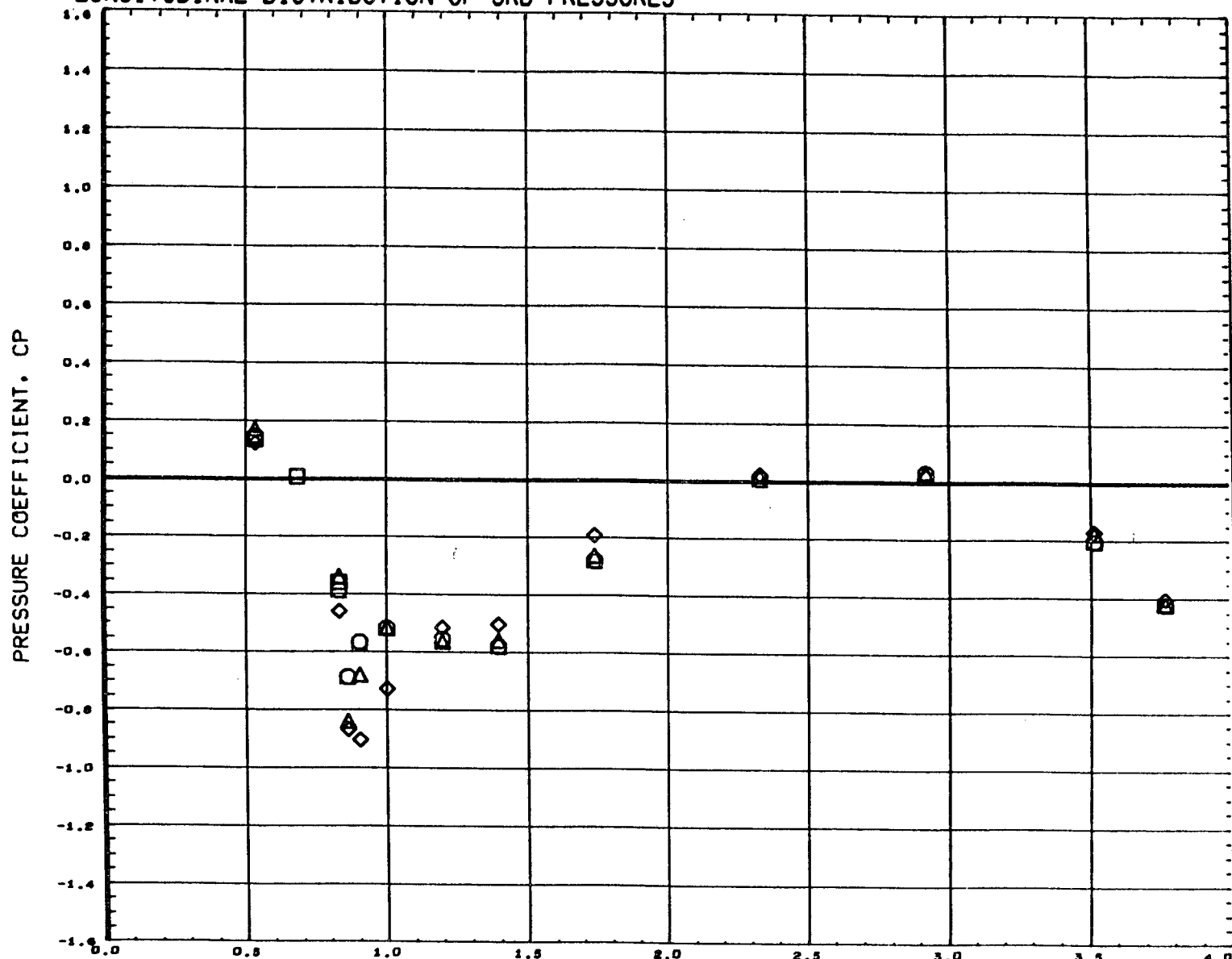
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 573

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



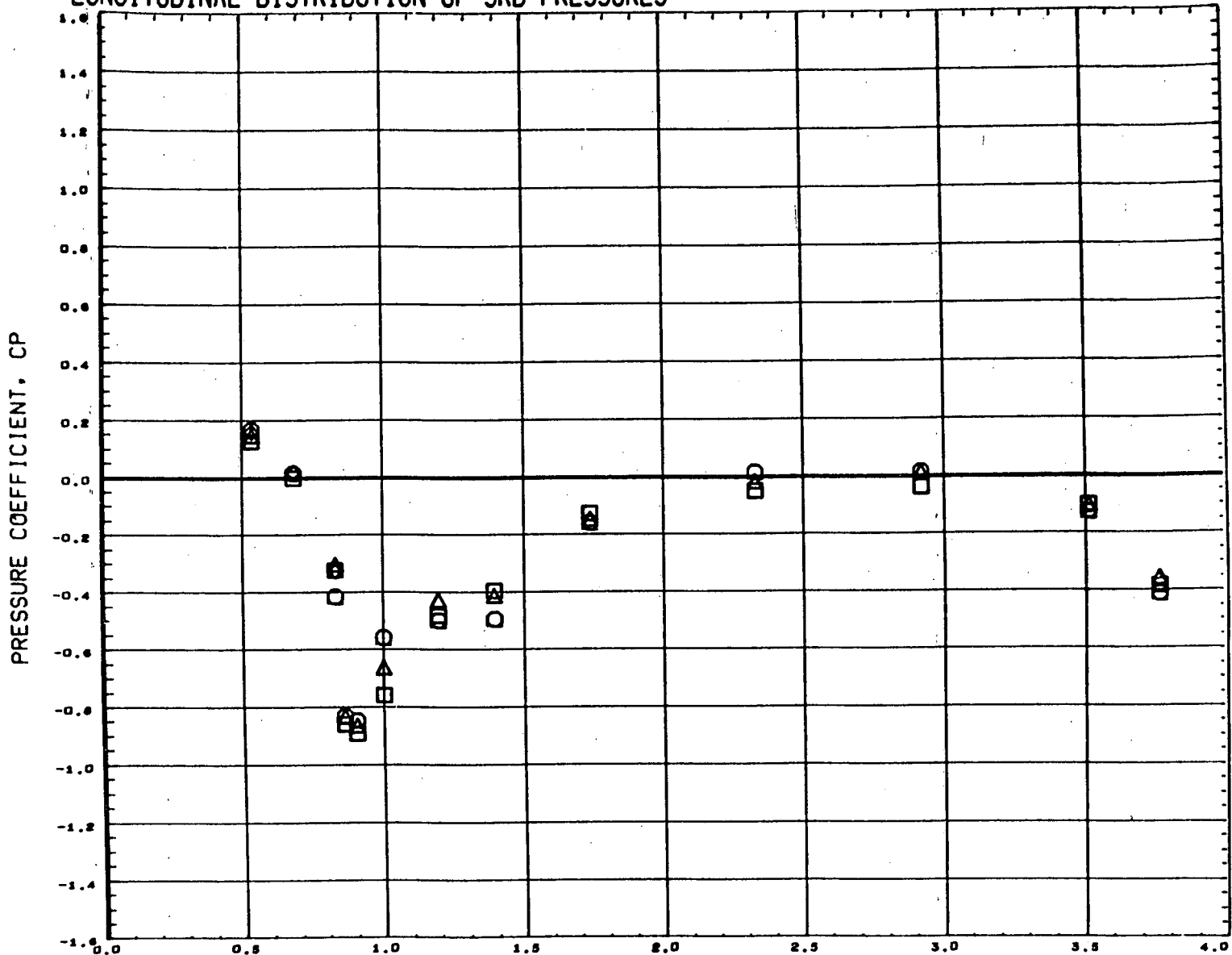
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	4.000	0.950
△	15.000		
◇	30.000		
□	45.000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBCAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

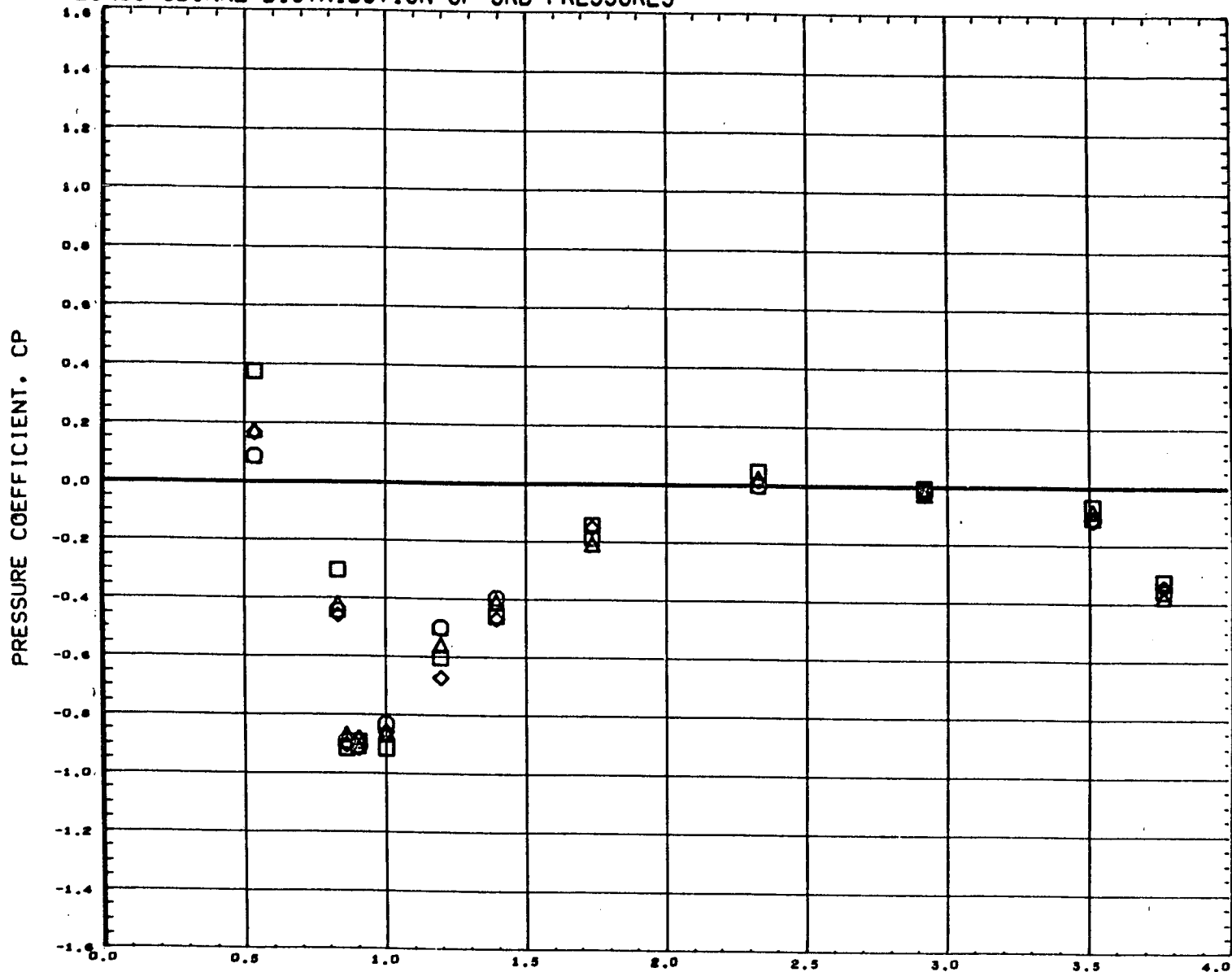


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	60.000	4.000	0.950	ALPHA 6.000 ORBINC - 1.500
△	75.000			SRBCAP 0.025
◇	90.000			
□	105.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL PHI BETA MACH
 ○ 120.000 4.000 0.950
 △ 135.000
 ◇ 150.000
 □ 165.000

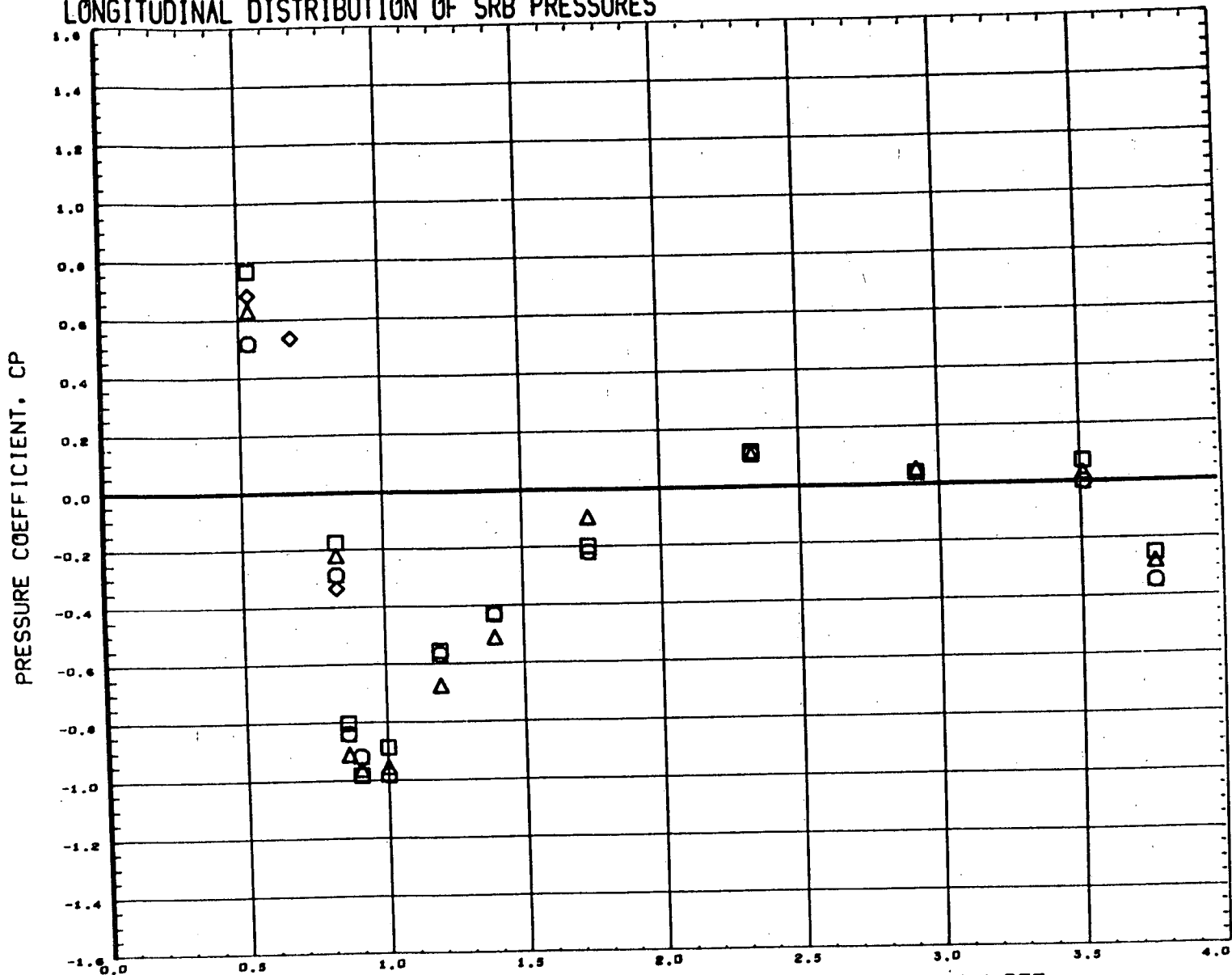
PARAMETRIC VALUES
 ALPHA 6.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 576

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	180.000	4.000	0.950
△	195.000		
◇	210.000		
□	225.000		

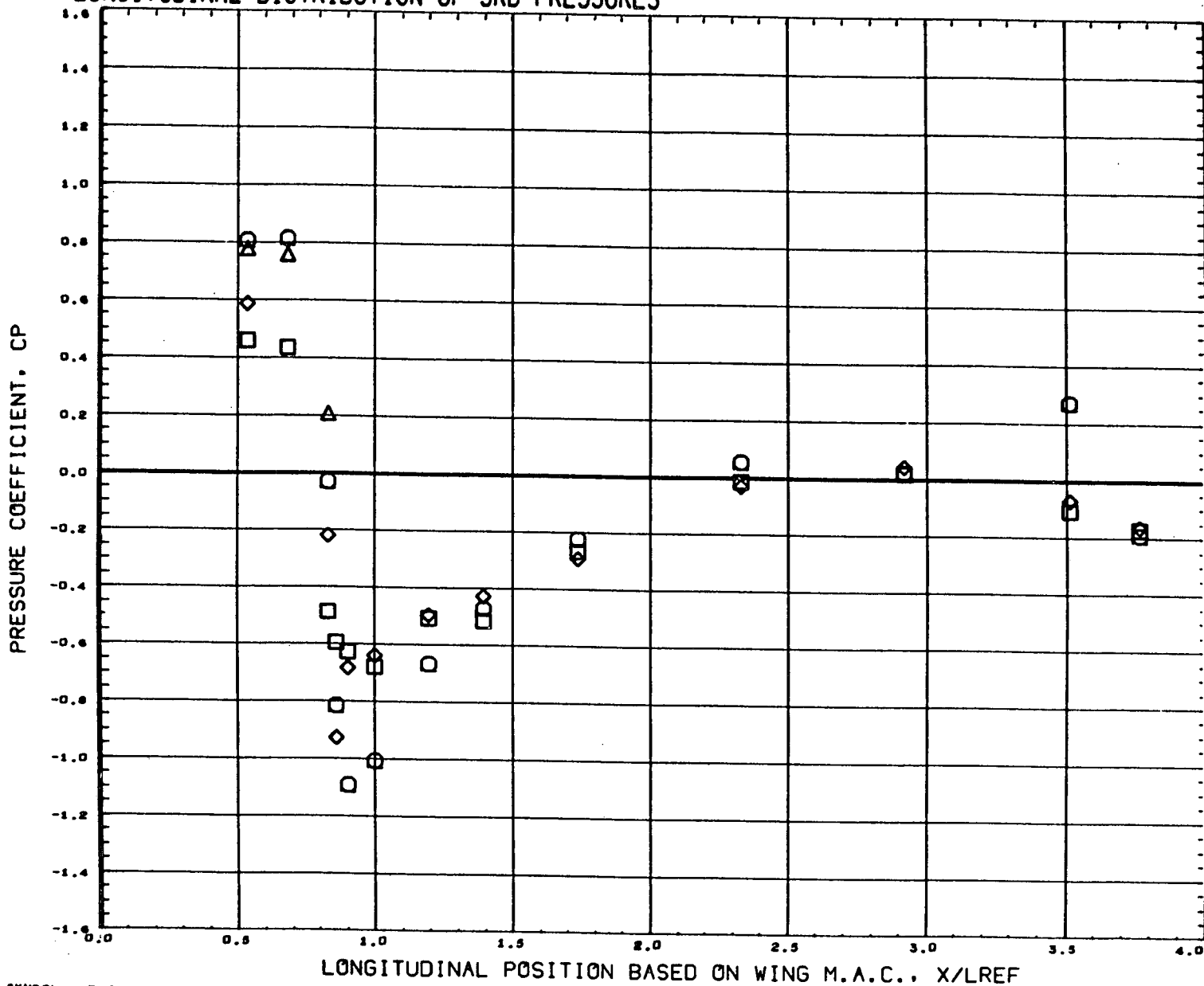
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBCAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704SM)

PAGE 577

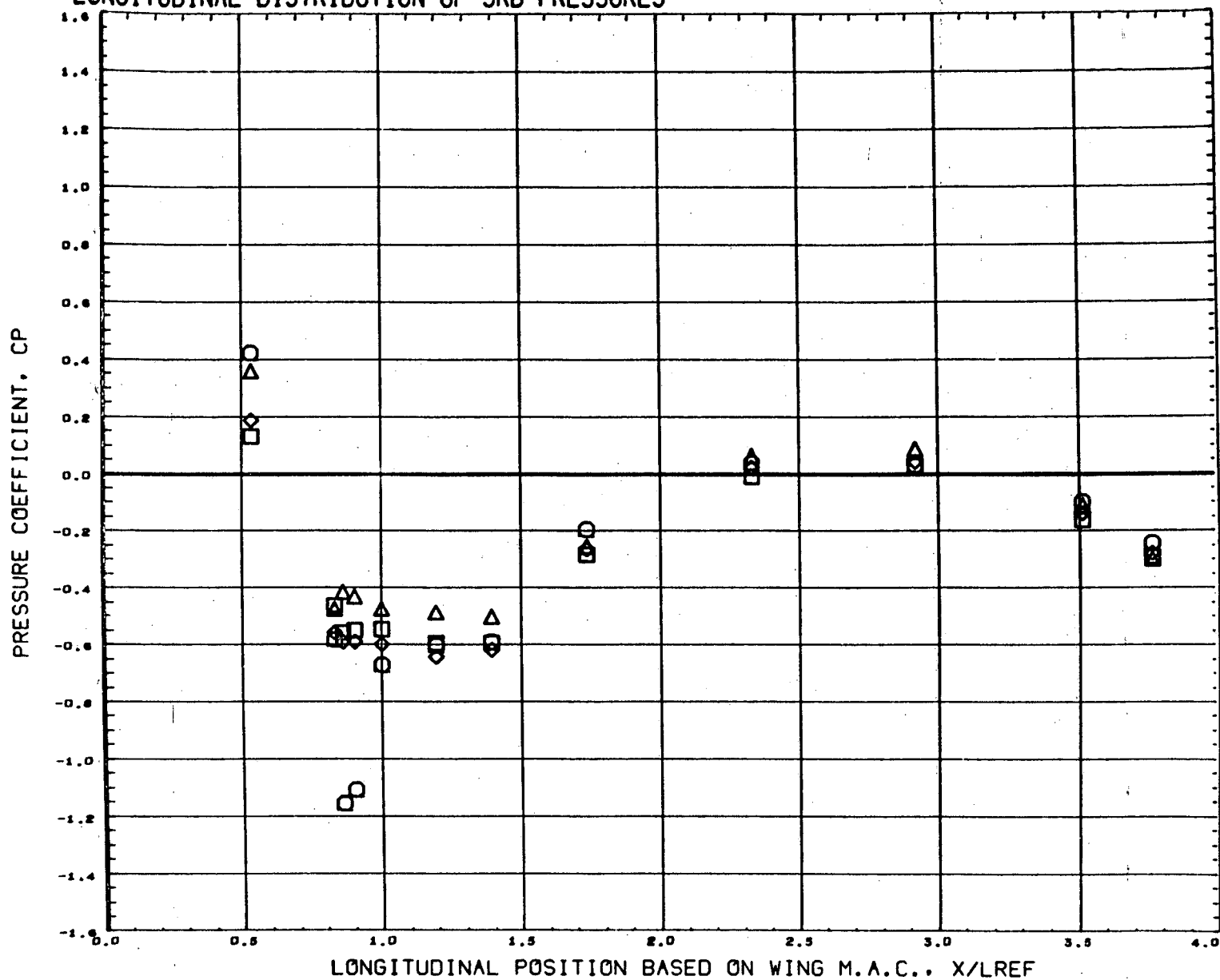
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	240,000	4.000	0.950	ALPHA	6.000	ORBINC - 1.500
△	255,000			SRBCAP	0.025	
◇	270,000					
□	285,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

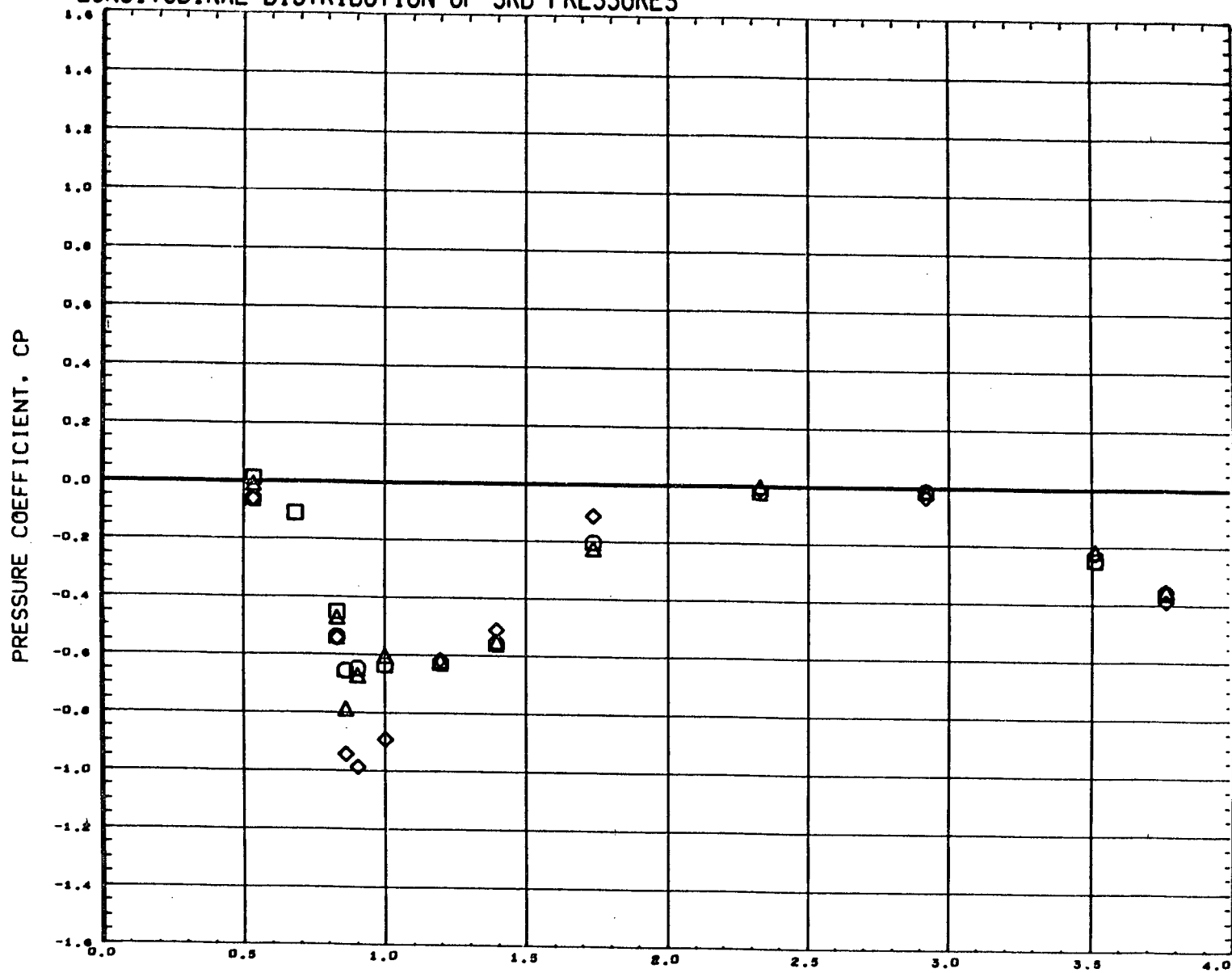
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	300.000	4.000	0.950	ALPHA	6.000	ORBINC - 1.500
△	315.000			SRBGAP	0.025	
◇	230.000					
□	345.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



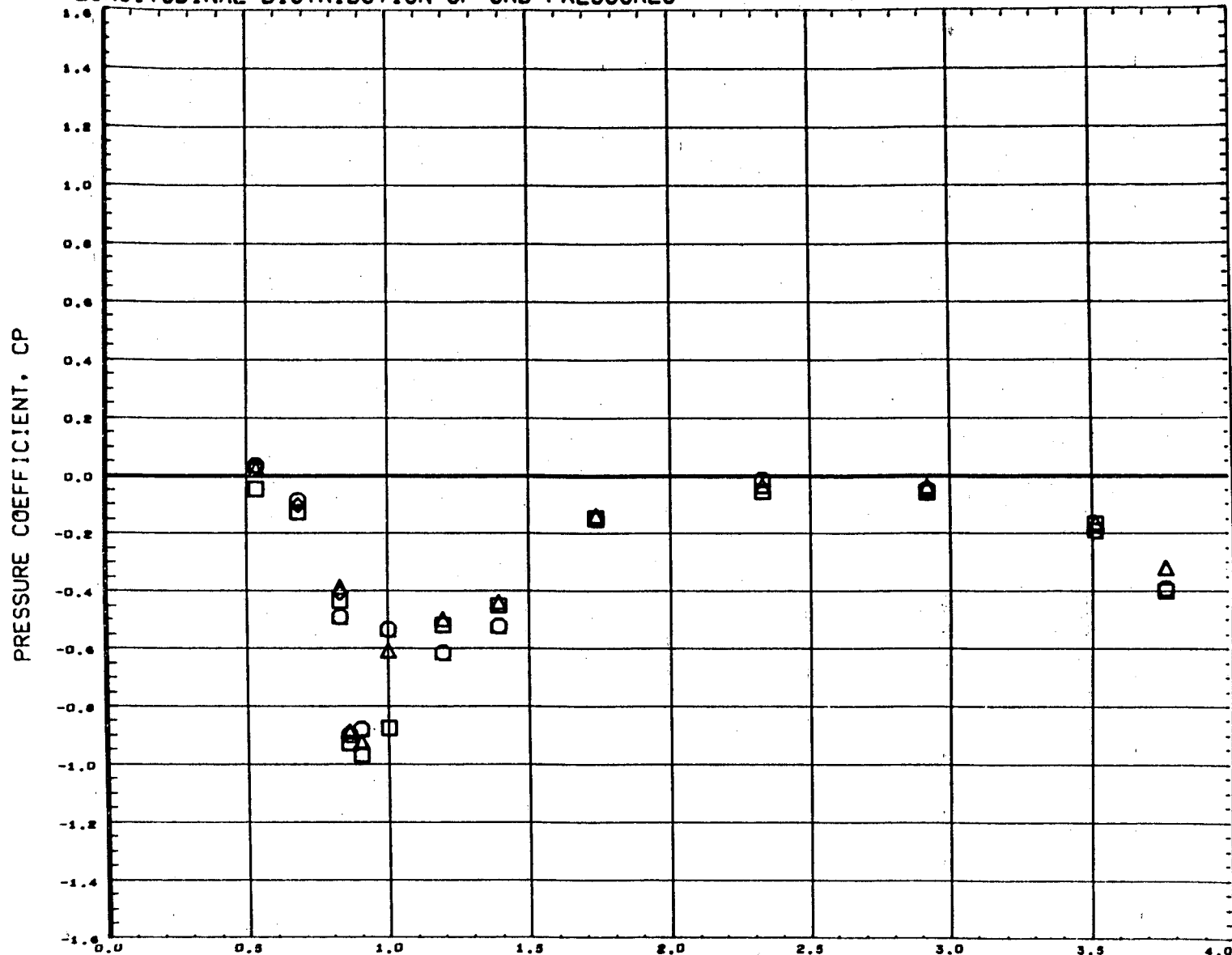
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	10.000	0.950
△	15.000		
◇	30.000		
□	45.000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

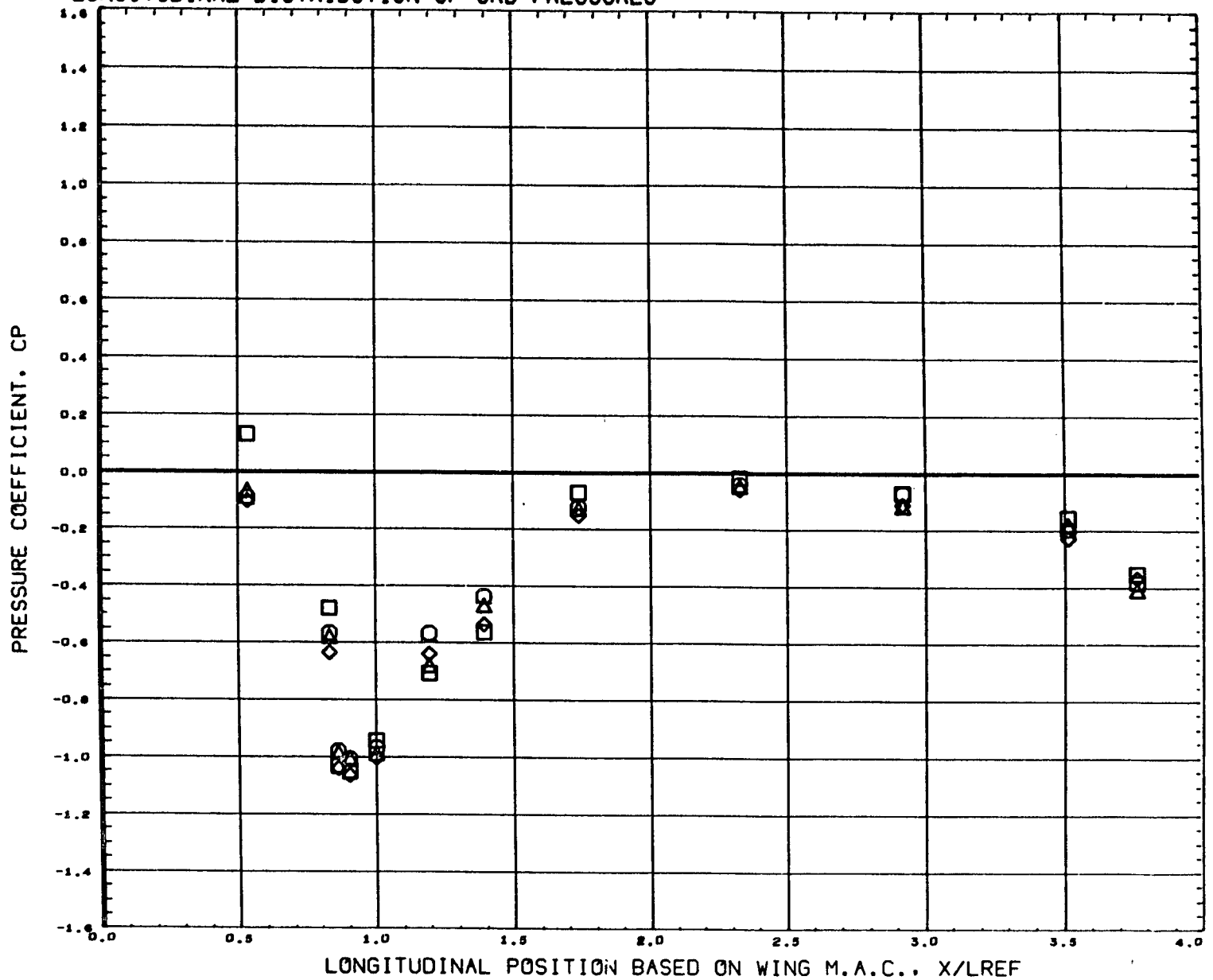


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	ALPHA	SRBGAP	PARAMETRIC VALUES
○	60.000	10.000	0.950	6.000	0.025	ORBITAL - 1.500
△	75.000					
◇	90.000					
□	105.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



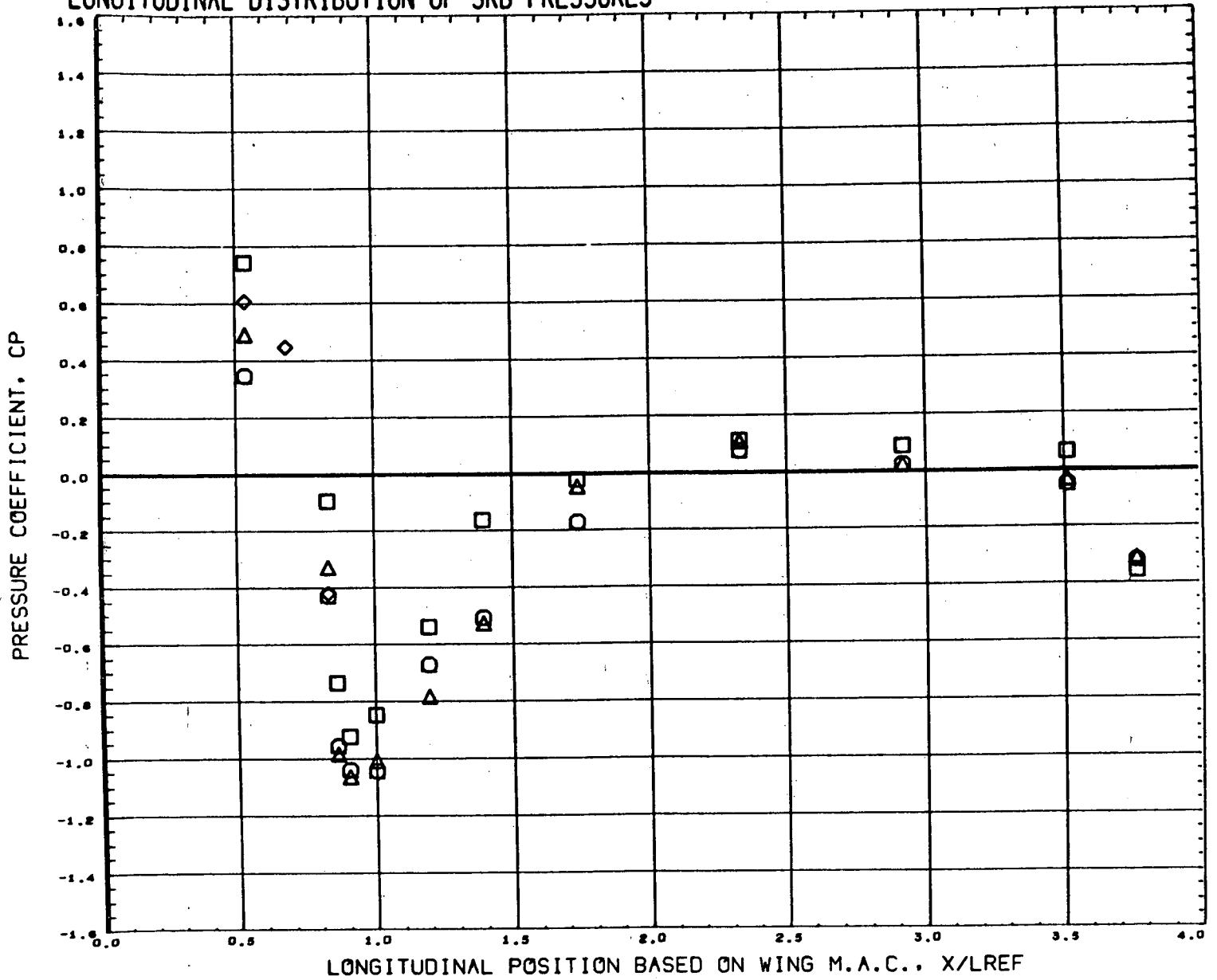
SYMBOL
○ 120.000
△ 135.000
◇ 150.000
□ 165.000

BETA 10.000
MACH 0.950

PARAMETRIC VALUES
ALPHA 6.000 ORBINC - 1.500
SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

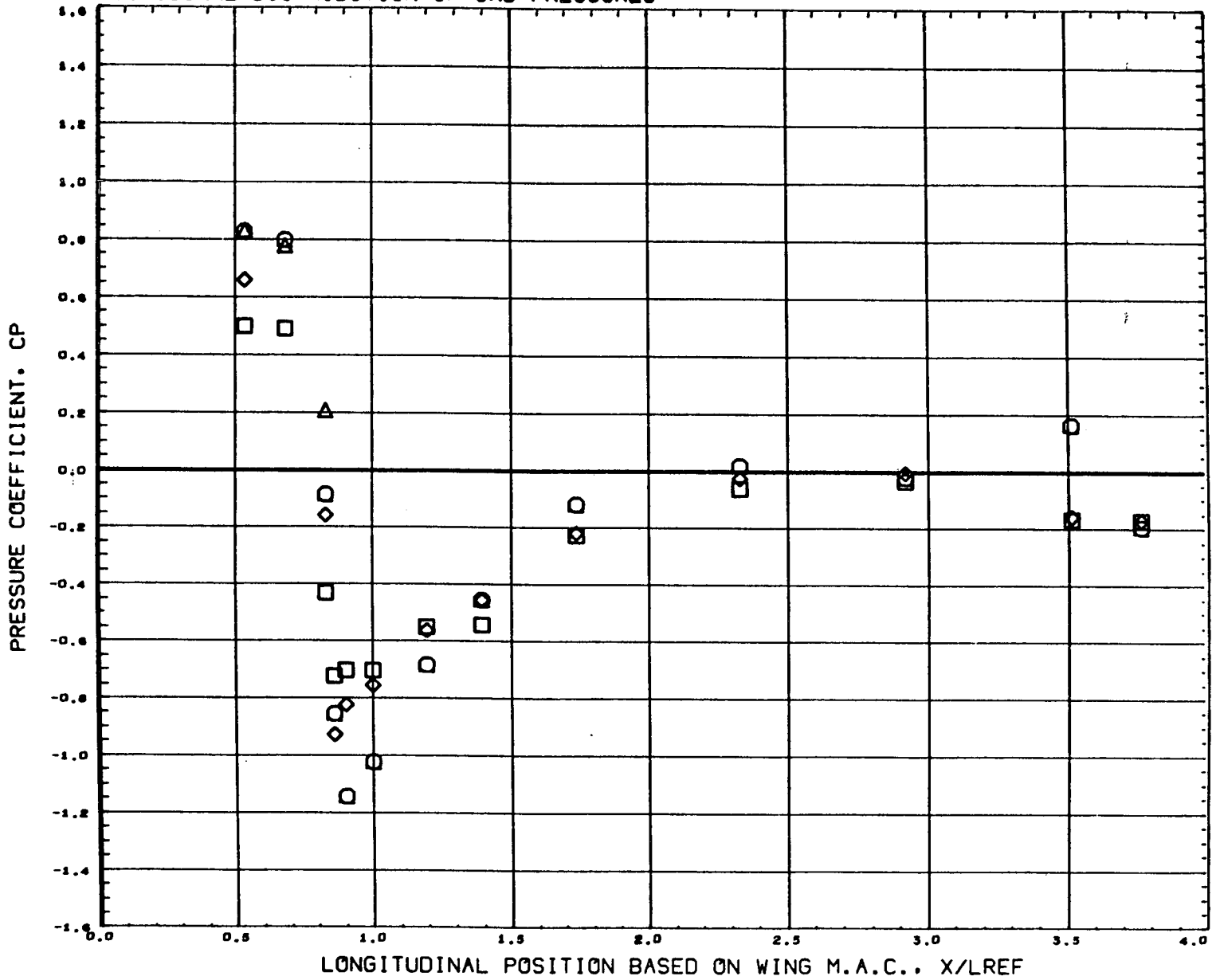


SYMBOL	PHI	BETA	MACH
○	180,000	10,000	0.950
△	195,000		
◇	210,000		
□	225,000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

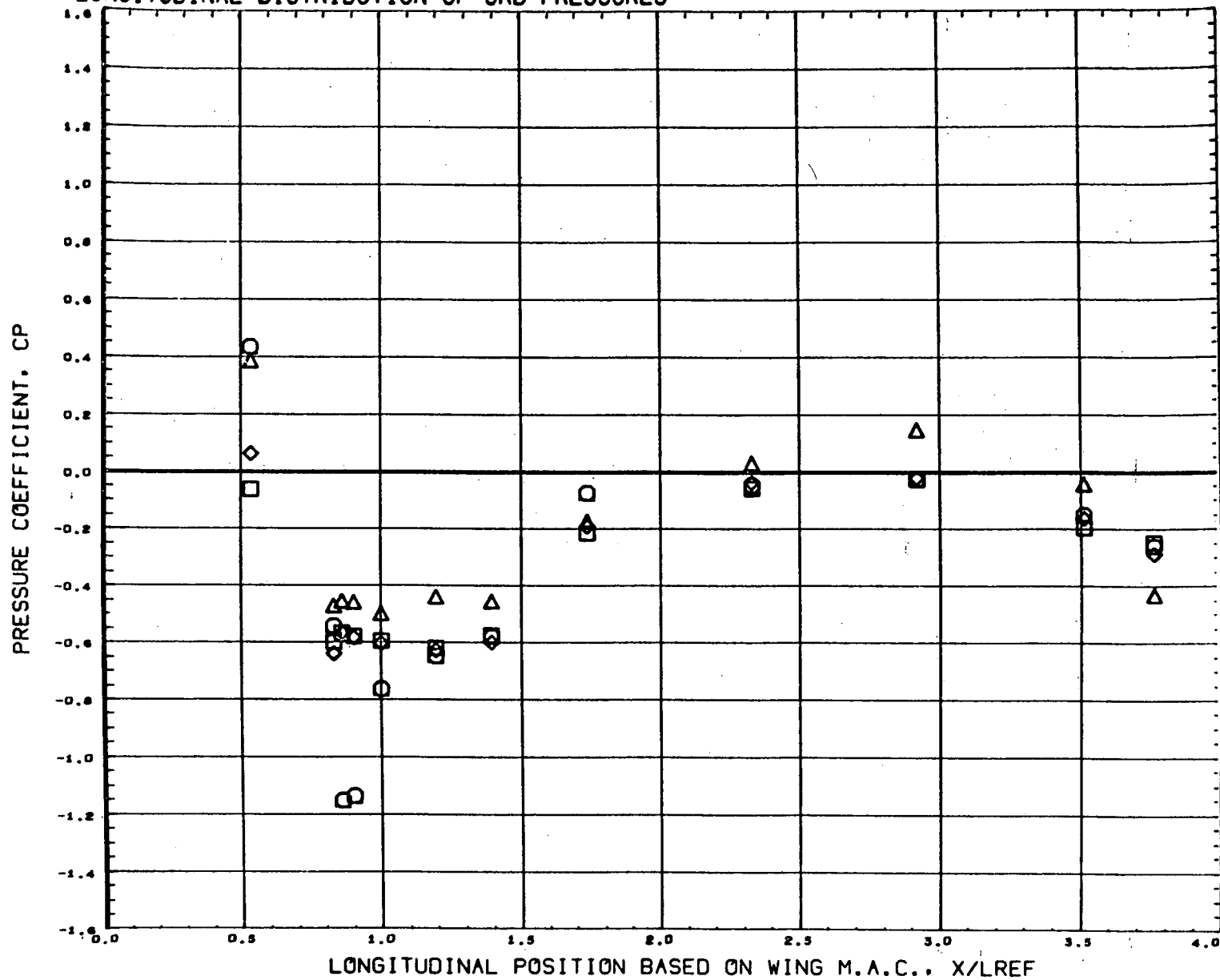


SYMBOL	PHI	BETA	MACH
○	240.000	10.000	0.950
△	255.000		
◇	270.000		
□	285.000		

PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

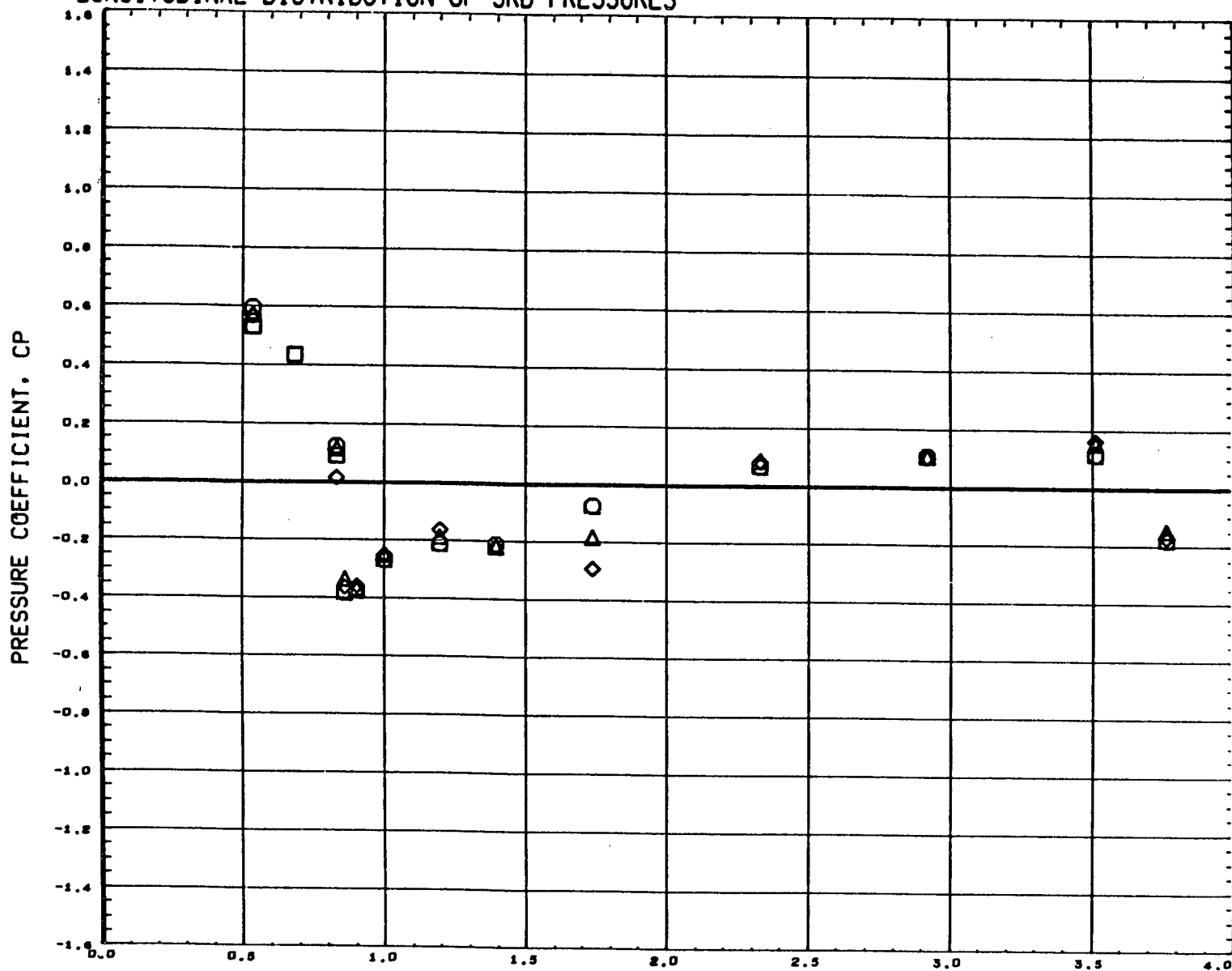
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	300.000	10.000	0.950	ALPHA	6.000
△	315.000			SRBG4P	0.025
◇	330.000				ORBINC - 1.500
□	345.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

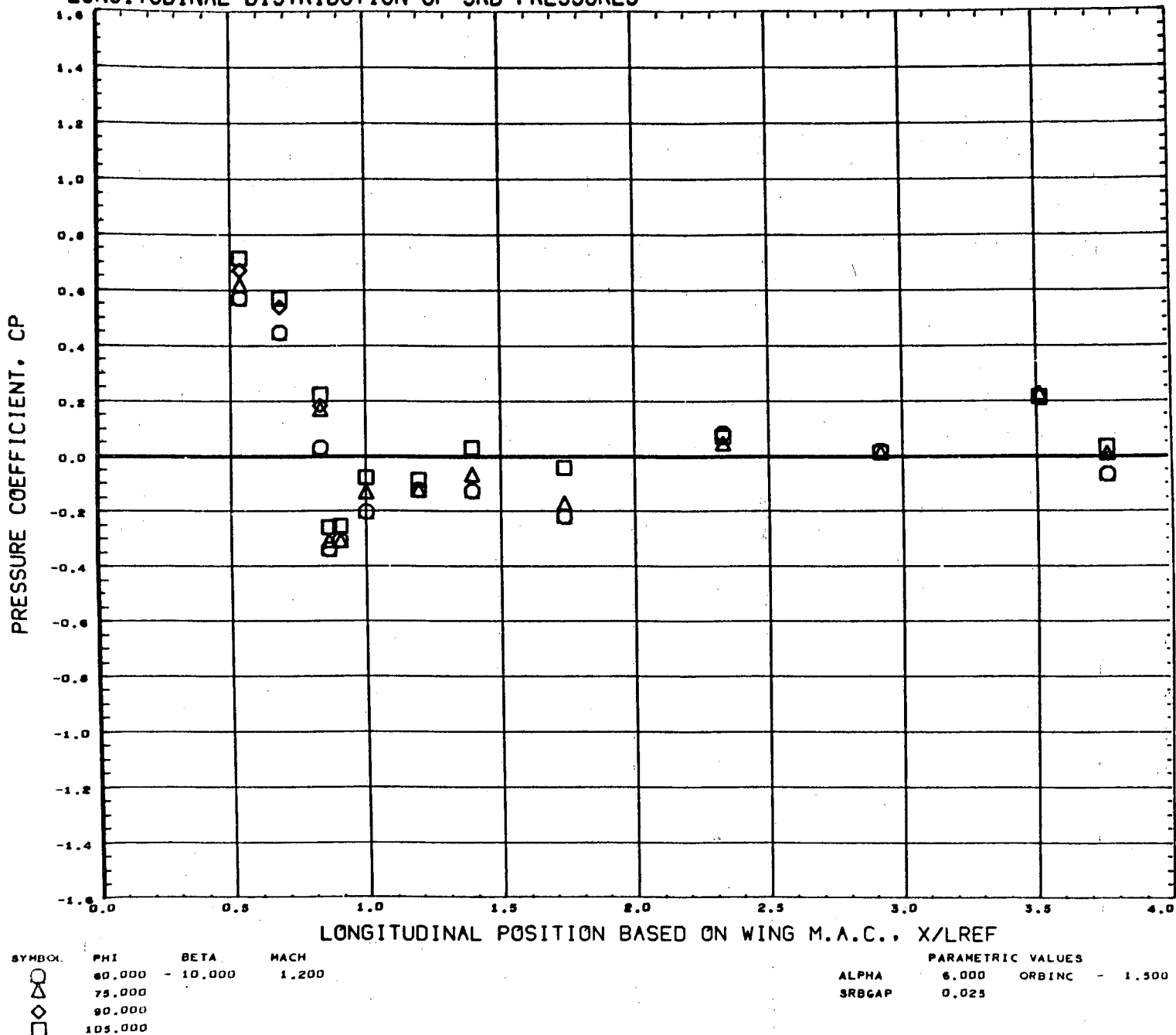
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	0.000	- 10.000	1.200	ALPHA 6.000 ORBINC - 1.500
△	15.000			SRBGAP 0.025
◇	30.000			
□	45.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



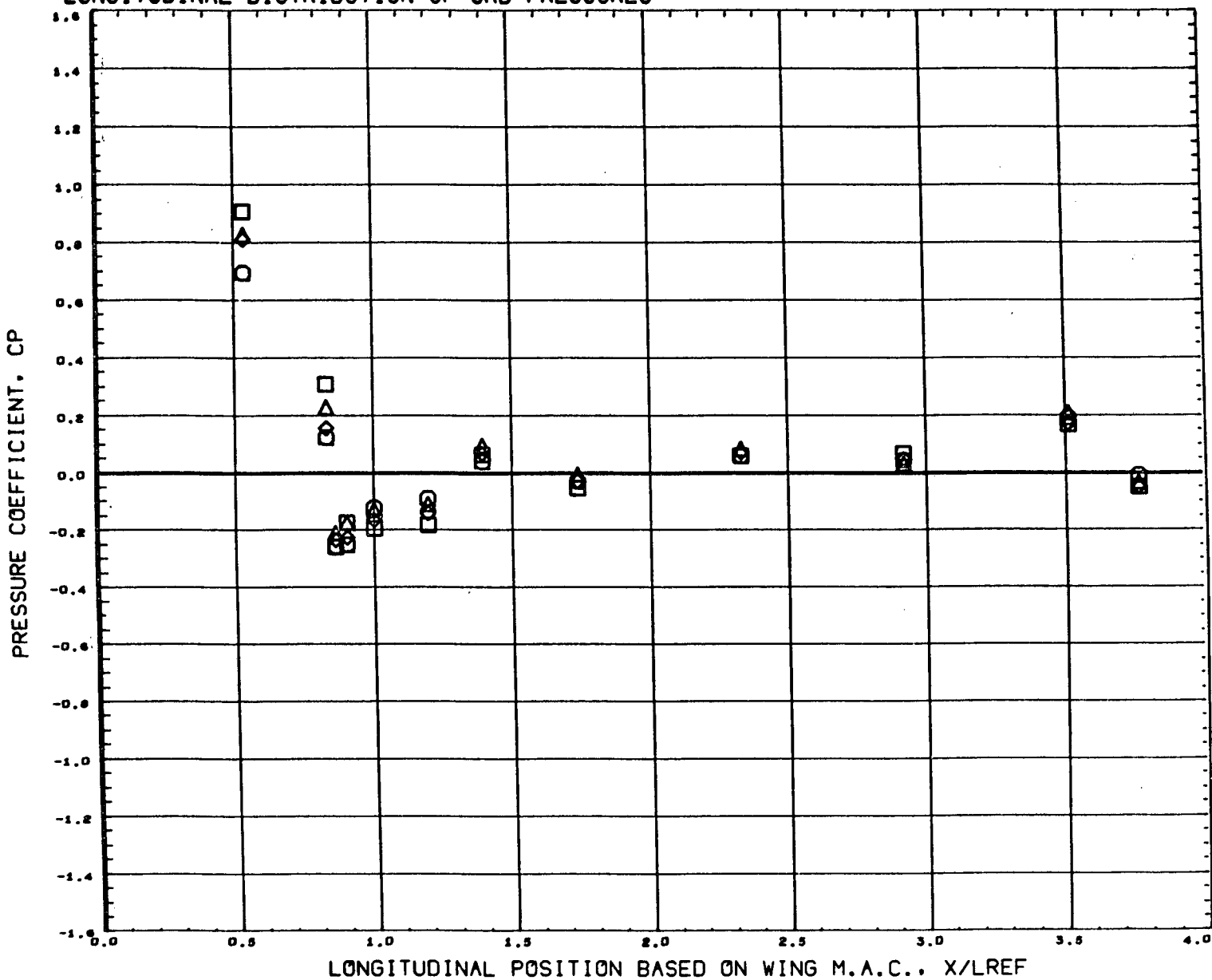
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 587

D

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

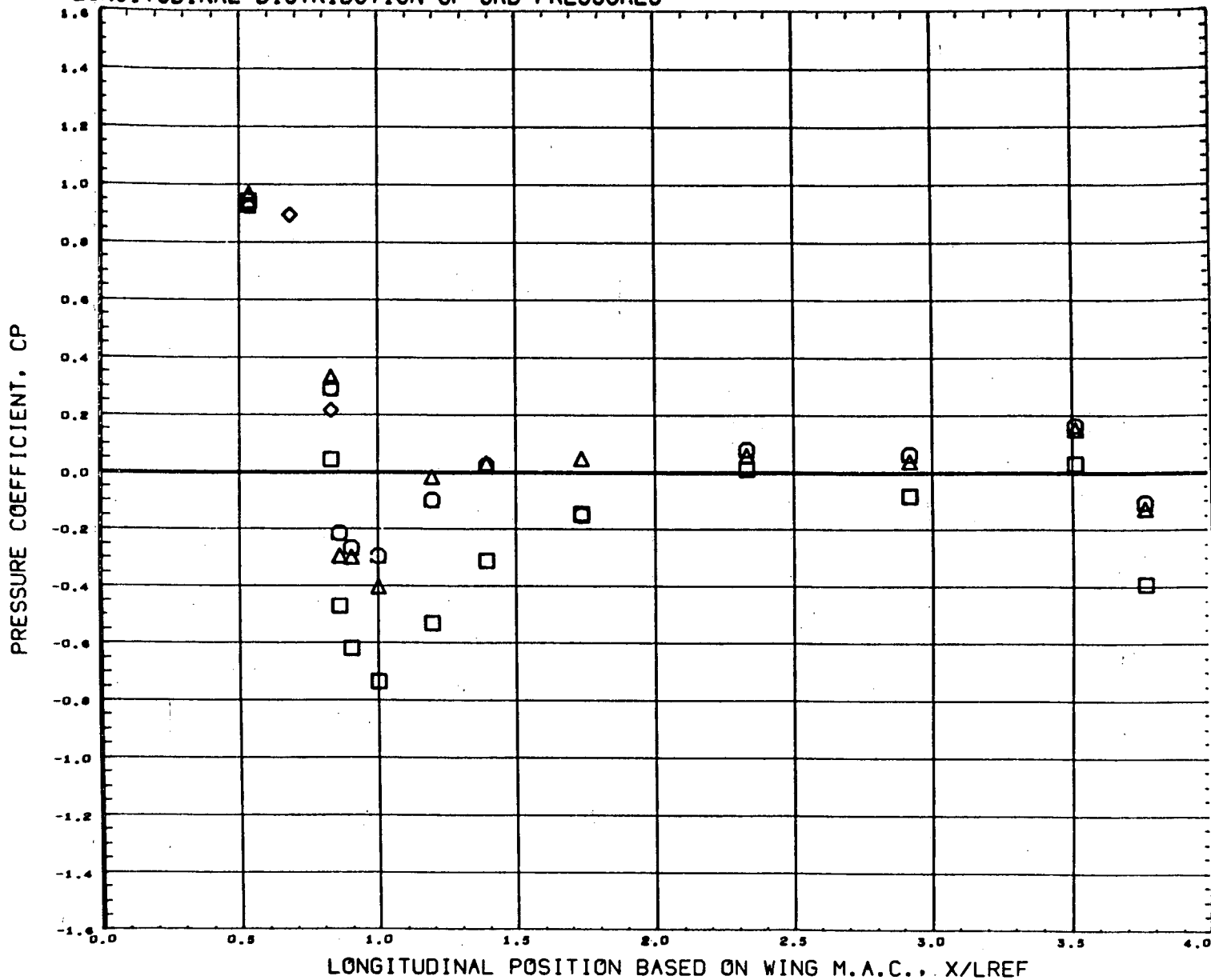


SYMBOL	PHI	BETA	MACH
○	120,000	- 10,000	1,200
△	135,000		
◇	150,000		
□	165,000		

PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

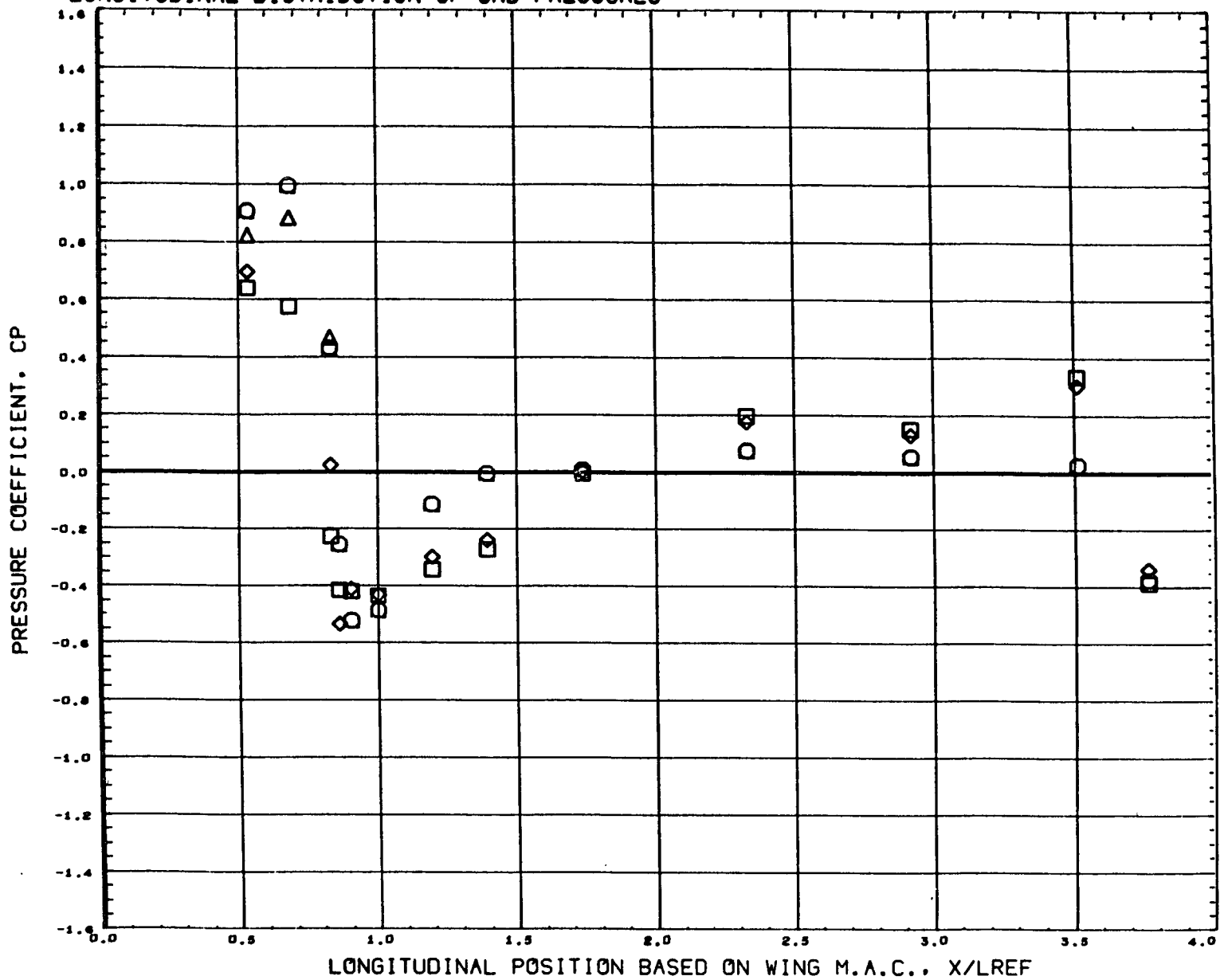
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	180.000	- 10.000	1.200	ALPHA	6.000 ORBINC - 1.500
△	195.000			SRBCAP	0.025
◇	210.000				
□	225.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

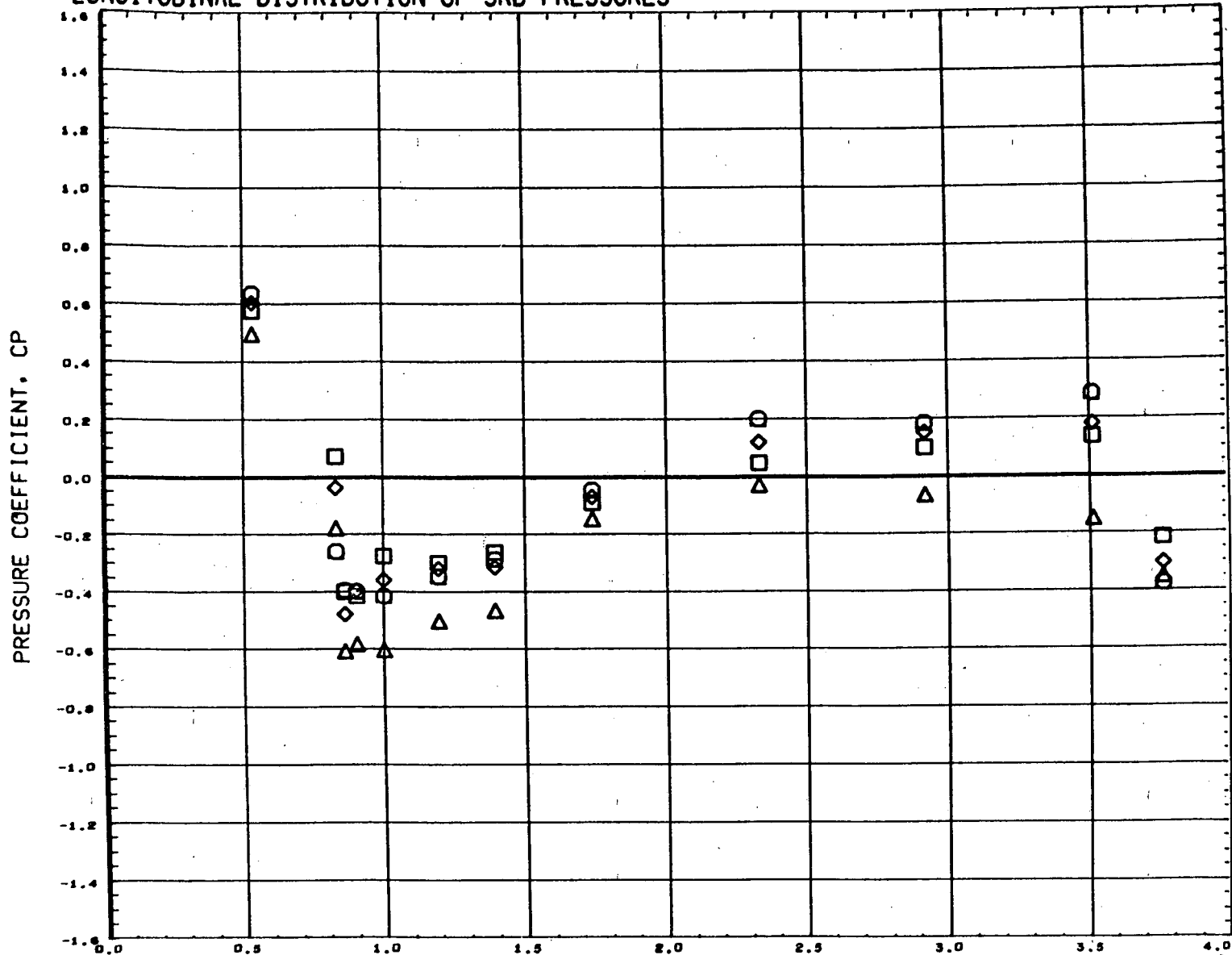
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	240.000	- 10.000	1.200	ALPHA	6.000
△	255.000			SRBGAP	0.025
◇	270.000			ORBINC	- 1.500
□	285.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



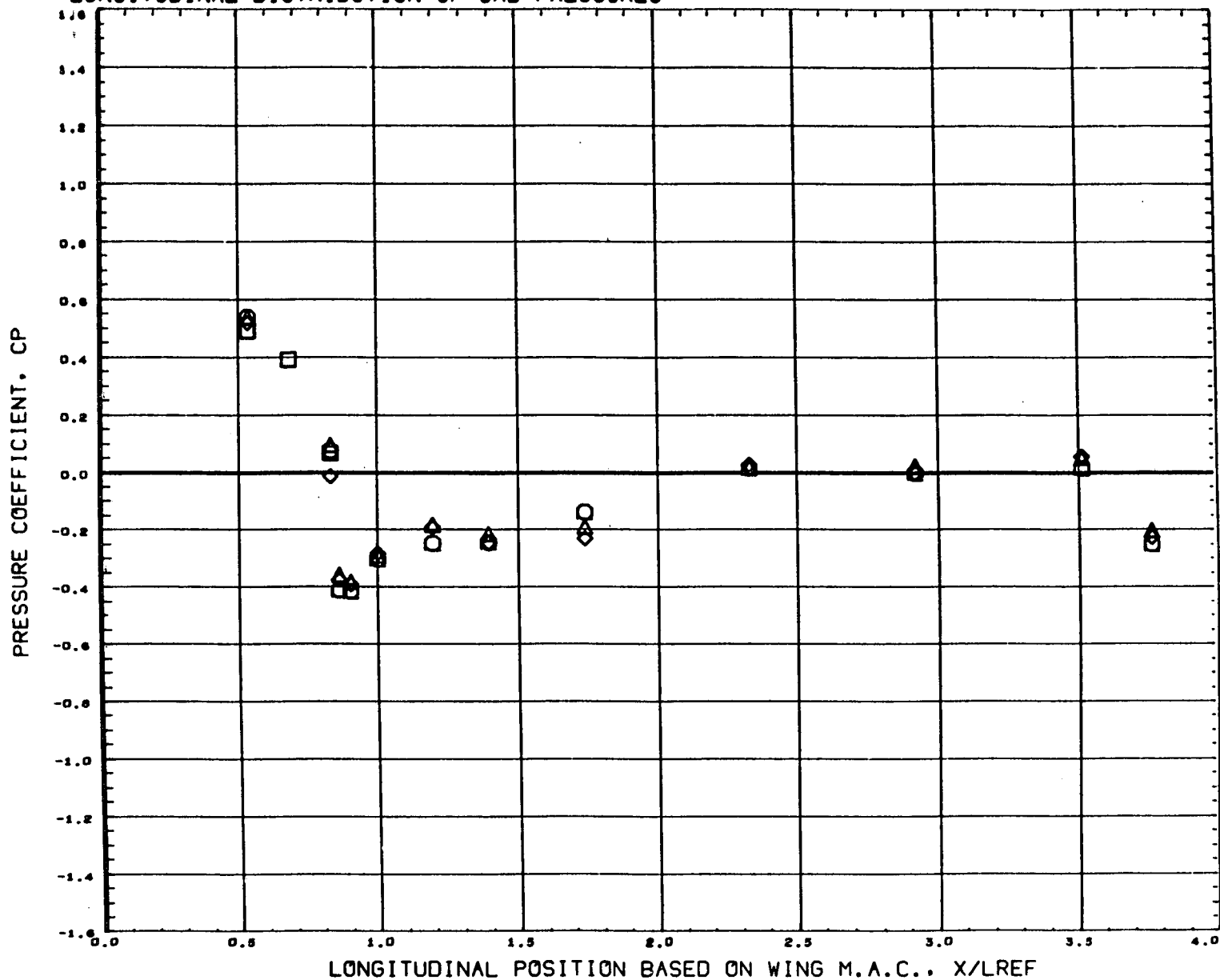
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	300.000	- 10.000	1.200
△	315.000		
◇	330.000		
□	345.000		

PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

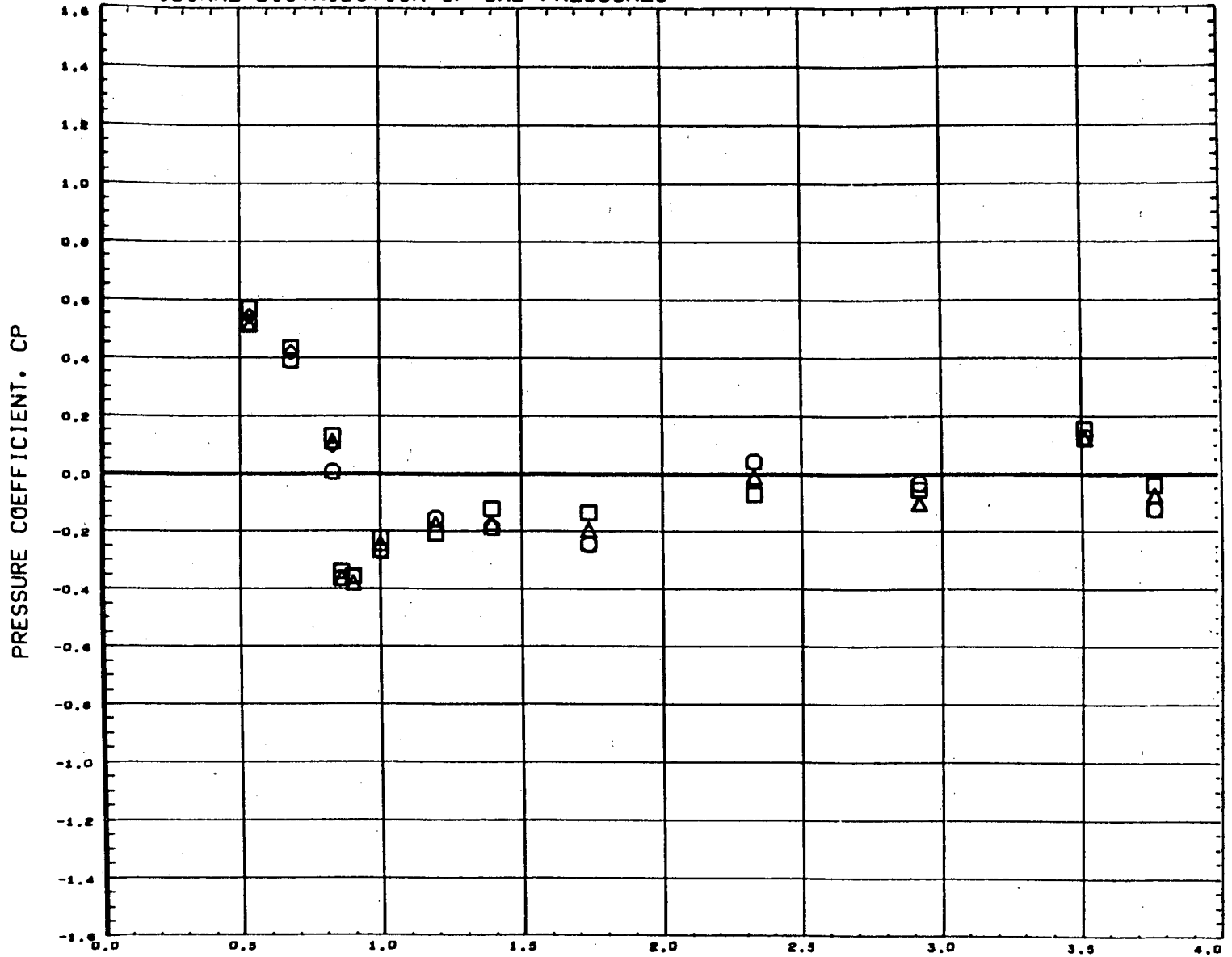
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	- 4.000	1.200	ALPHA	6.000
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



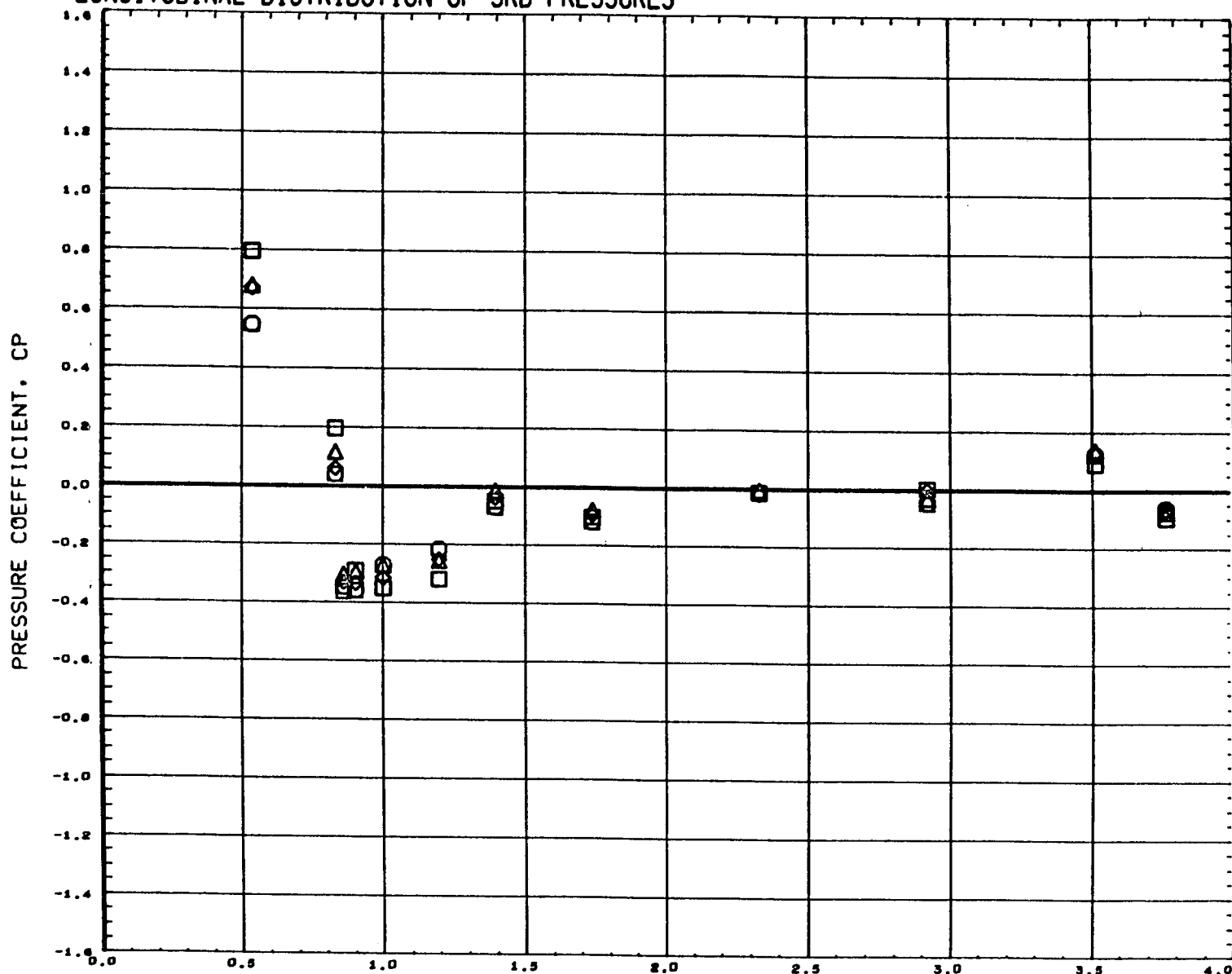
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	60.000	4.000	1.200
△	75.000		
◇	90.000		
□	105.000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

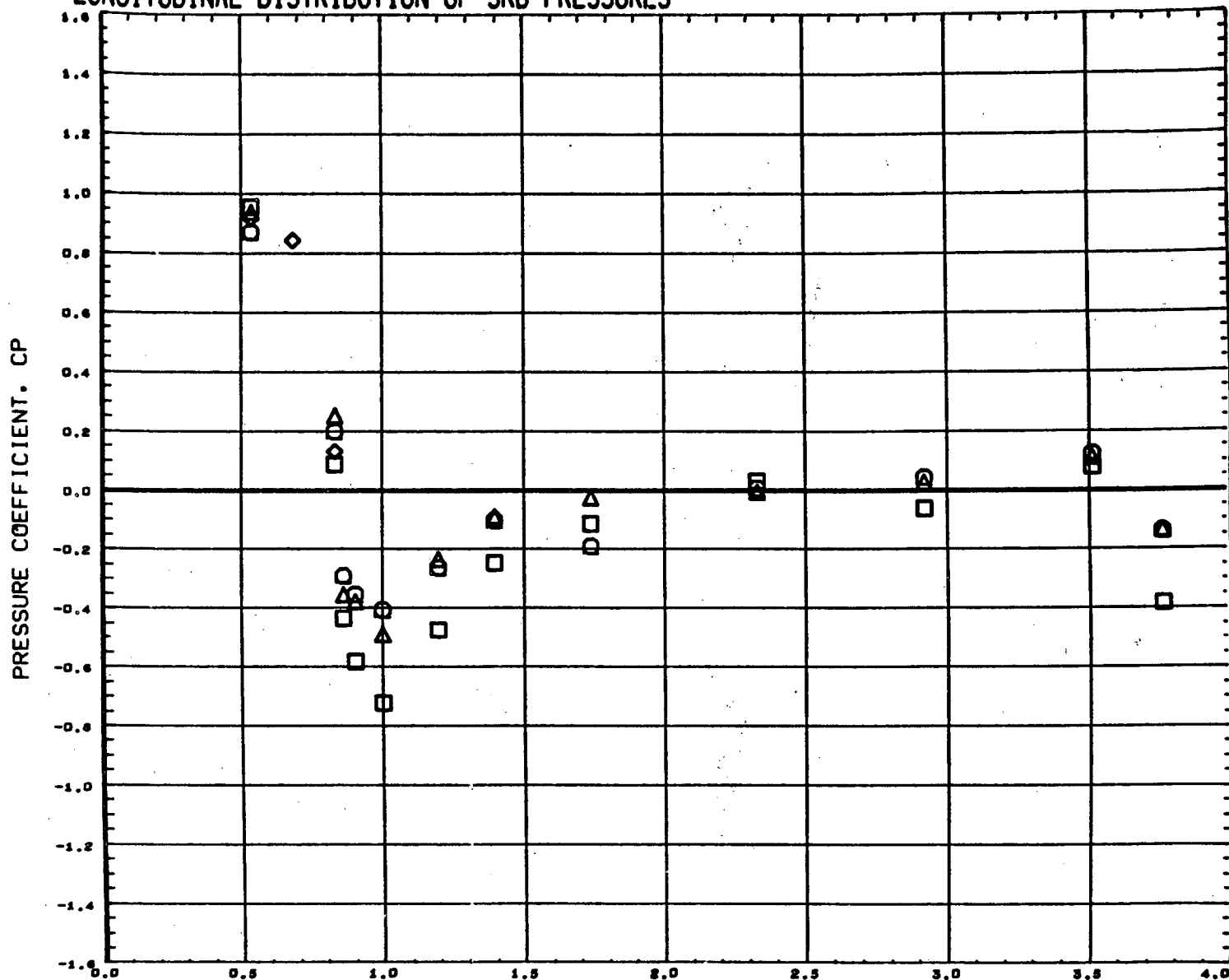


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	120,000	- 4,000	1,200	ALPHA 6.000 ORBINC - 1.500
△	135,000			SRBGAP 0.025
◇	150,000			
□	165,000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	180,000	- 4.000	1.200
△	195,000		
◇	210,000		
□	225,000		

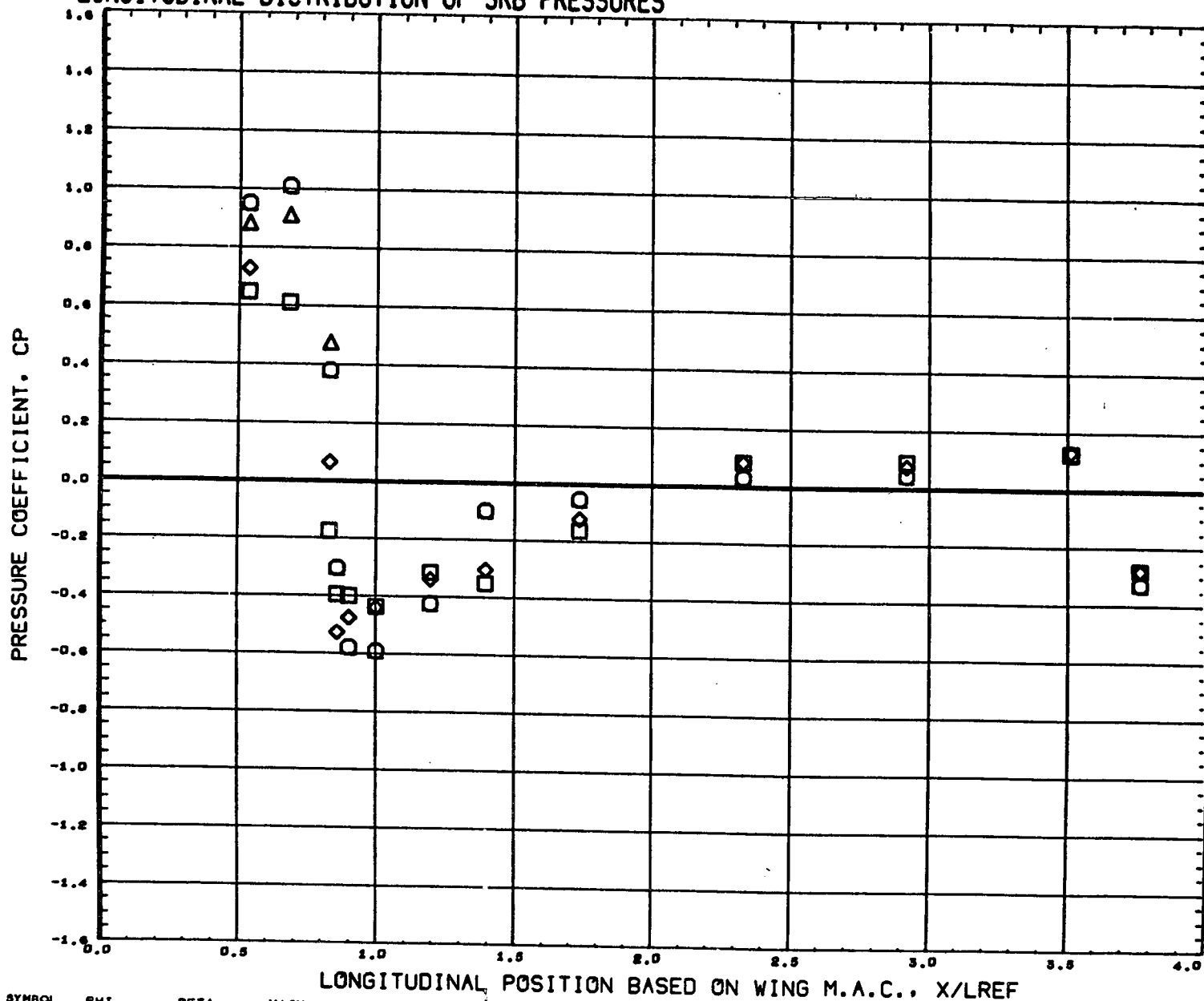
PARAMETRIC VALUES			
ALPHA	6.000	ORBINC	- 1.500
SRBCAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704SM)

PAGE 595

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	240.000	- 4.000	1.200
△	255.000		
◇	270.000		
□	285.000		

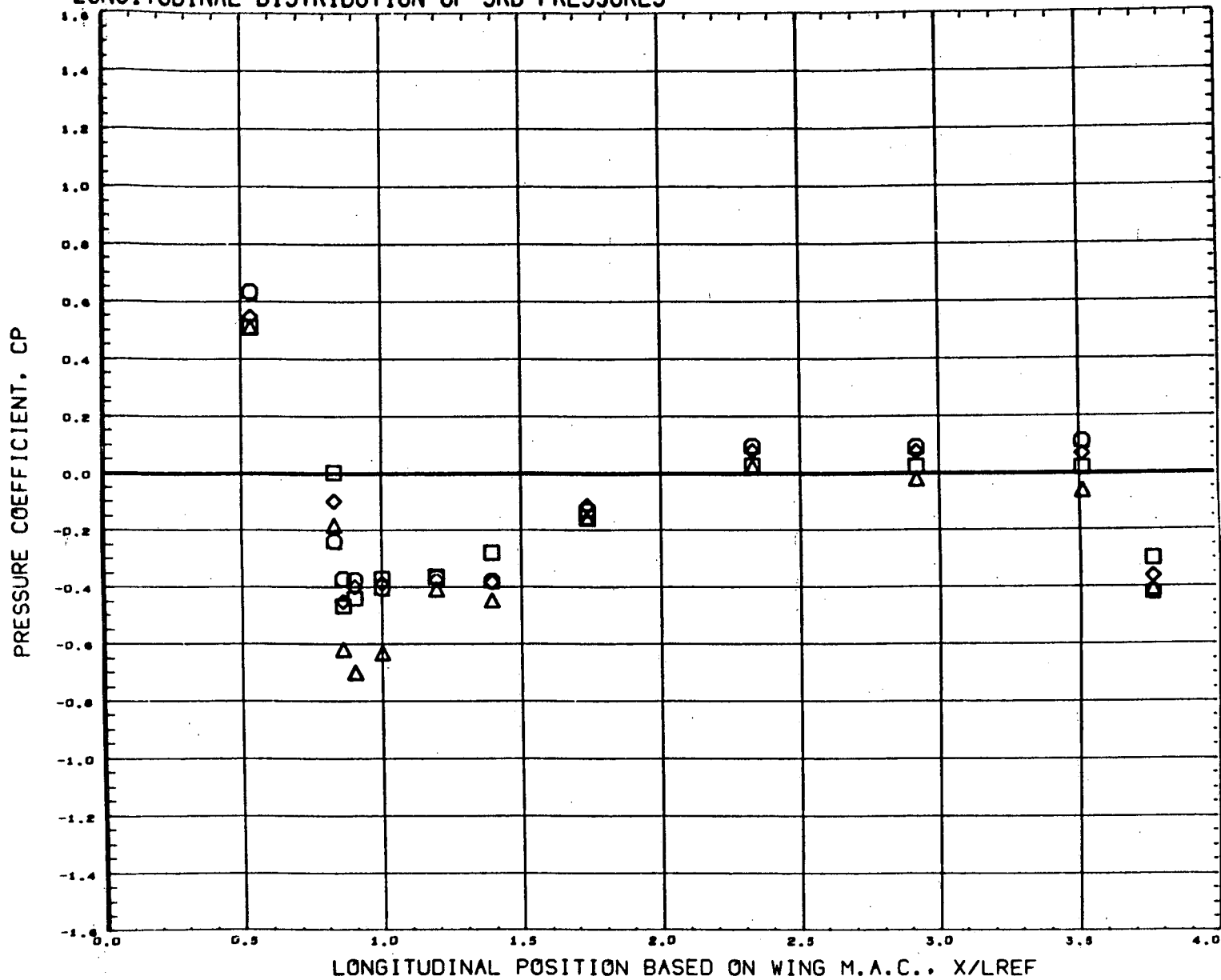
PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBGAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 596

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

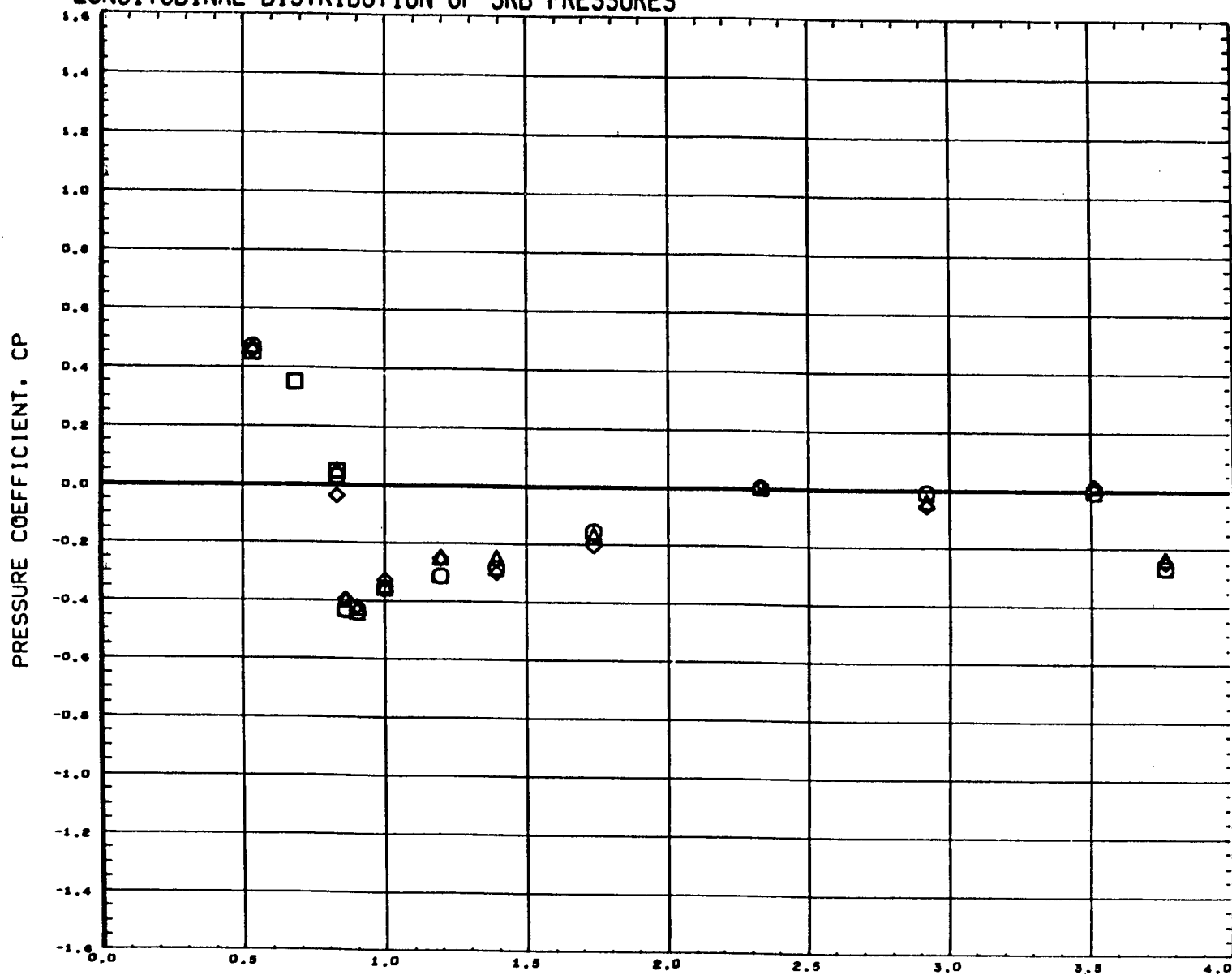


SYMBOL PHI BETA MACH
 ○ 300,000 - 4.000 1.200
 △ 315,000
 ◇ 330,000
 □ 345,000

PARAMETRIC VALUES
 ALPHA 6.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

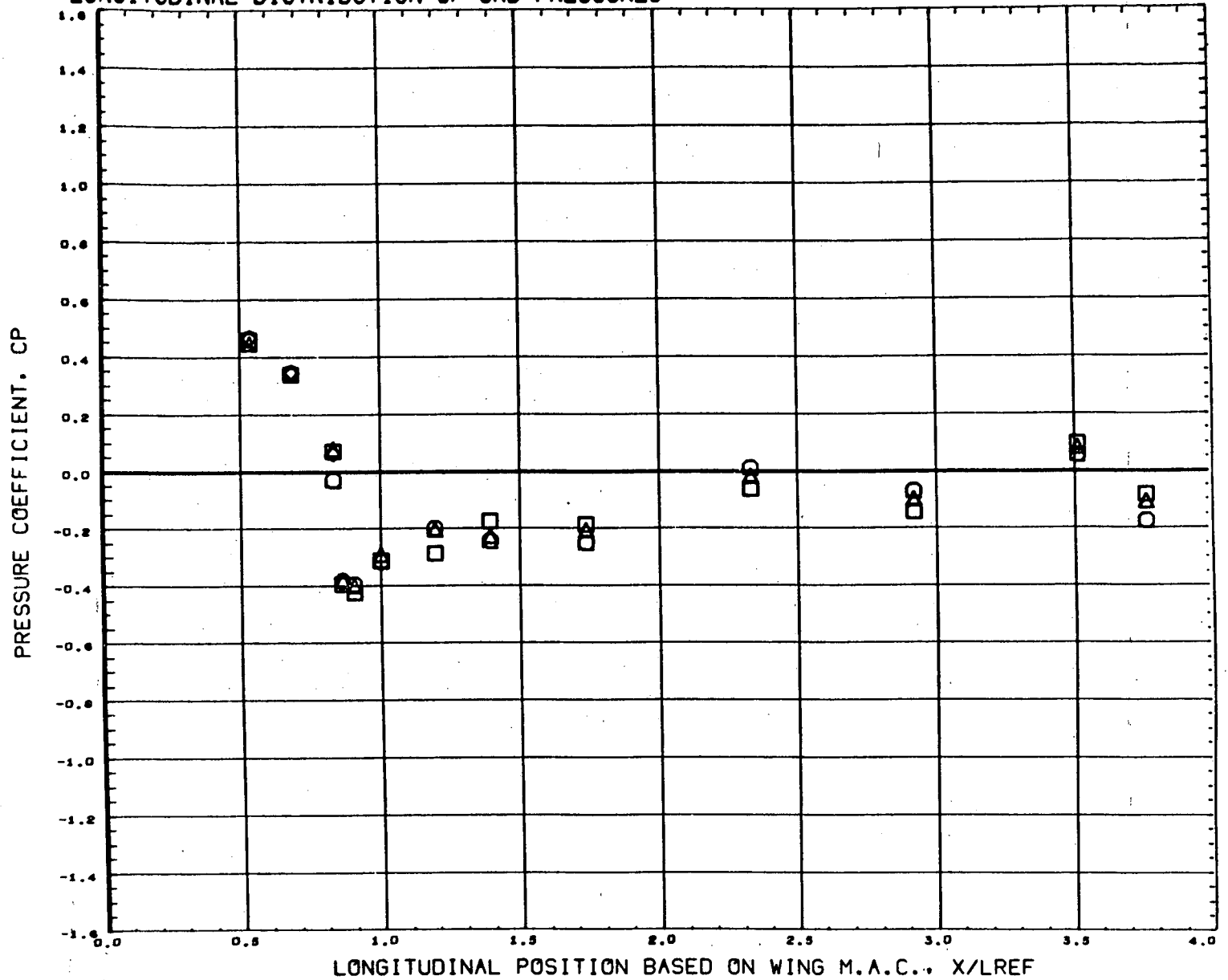
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	0.000	0.000	1.200	ALPHA	6.000
△	15.000			SRBGAP	0.025
◇	30.000				
□	45.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

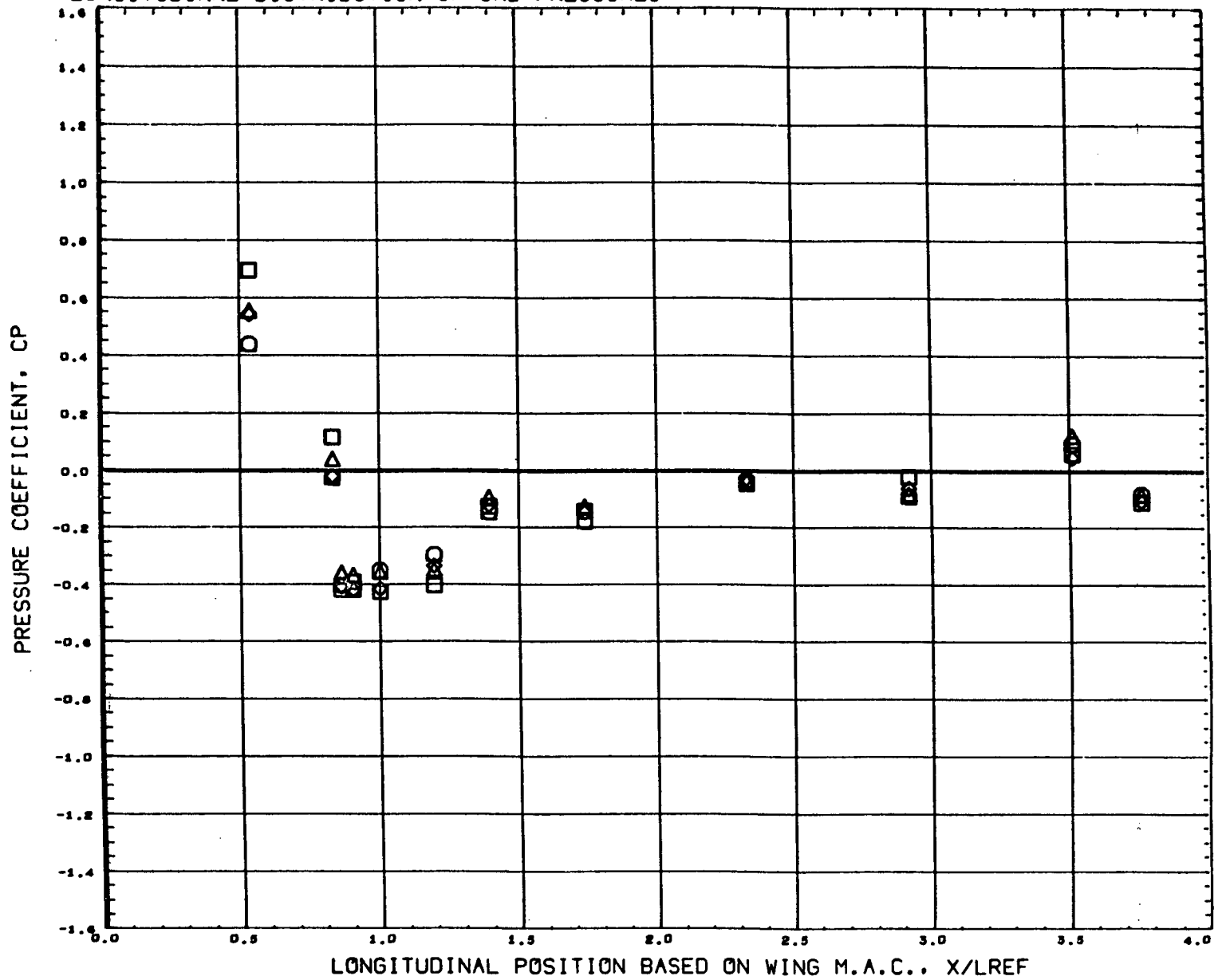
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	60.000	0.000	1.200	ALPHA	6.000
△	75.000			SRBGAP	0.025
◇	90.000				
□	105.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

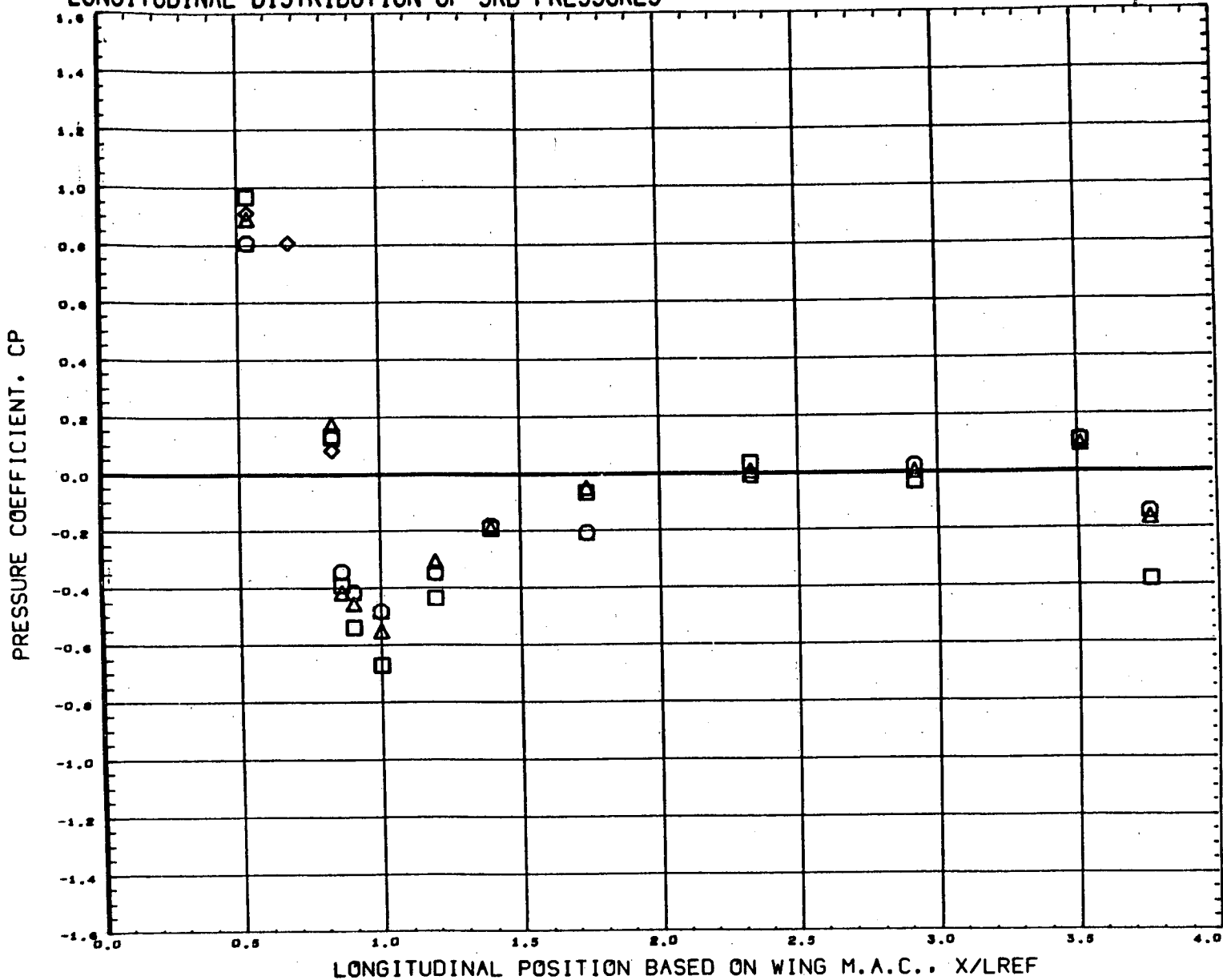
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PARAMETRIC VALUES		
	PHI	BETA	MACH
○	120,000	0.000	1.200
△	135,000		
◇	150,000		
□	165,000		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	180,000	0.000	1.200
△	195,000		
◇	210,000		
□	225,000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC 1.900
SRBGAP	0.025	

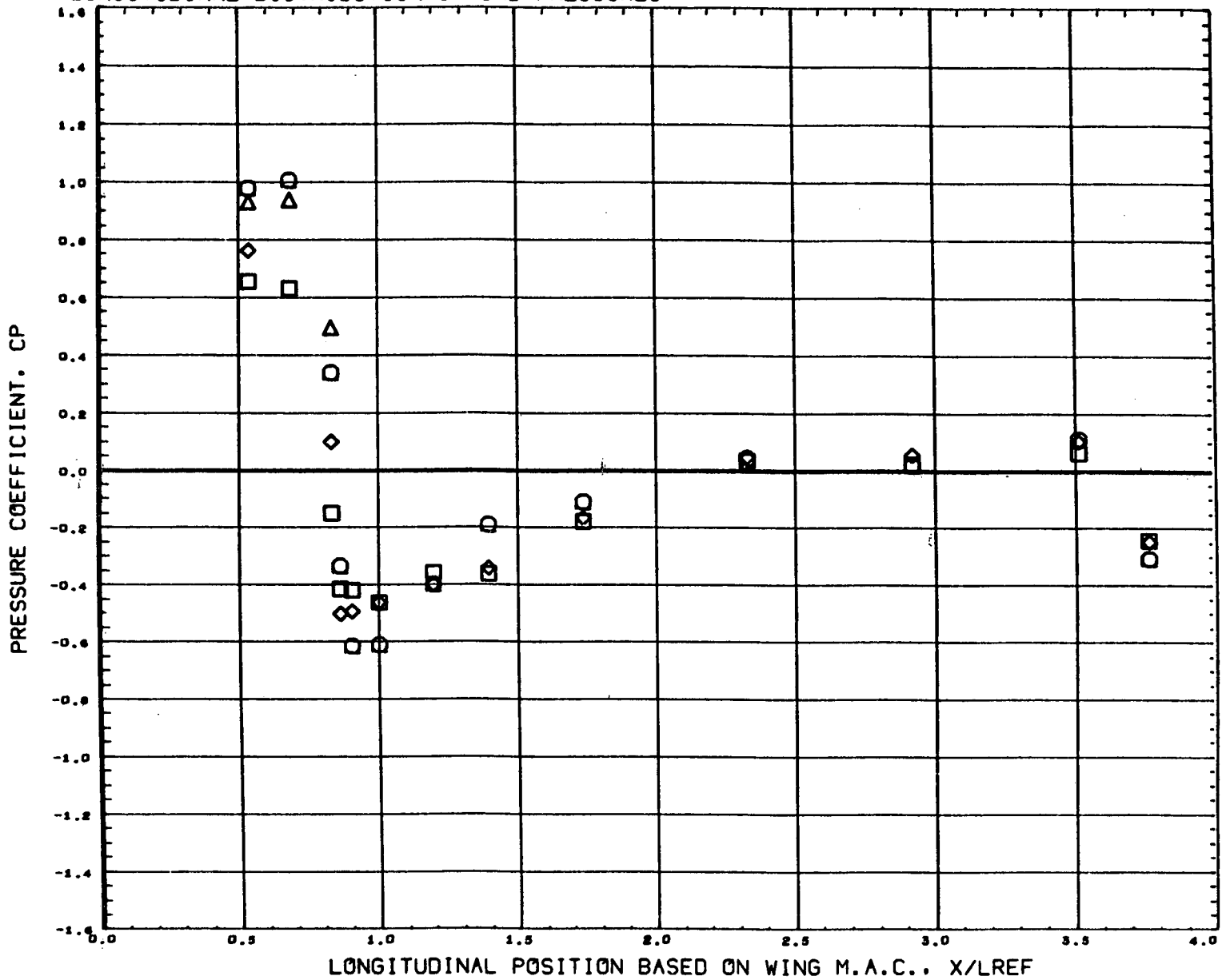
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704SM)

PAGE 601

E

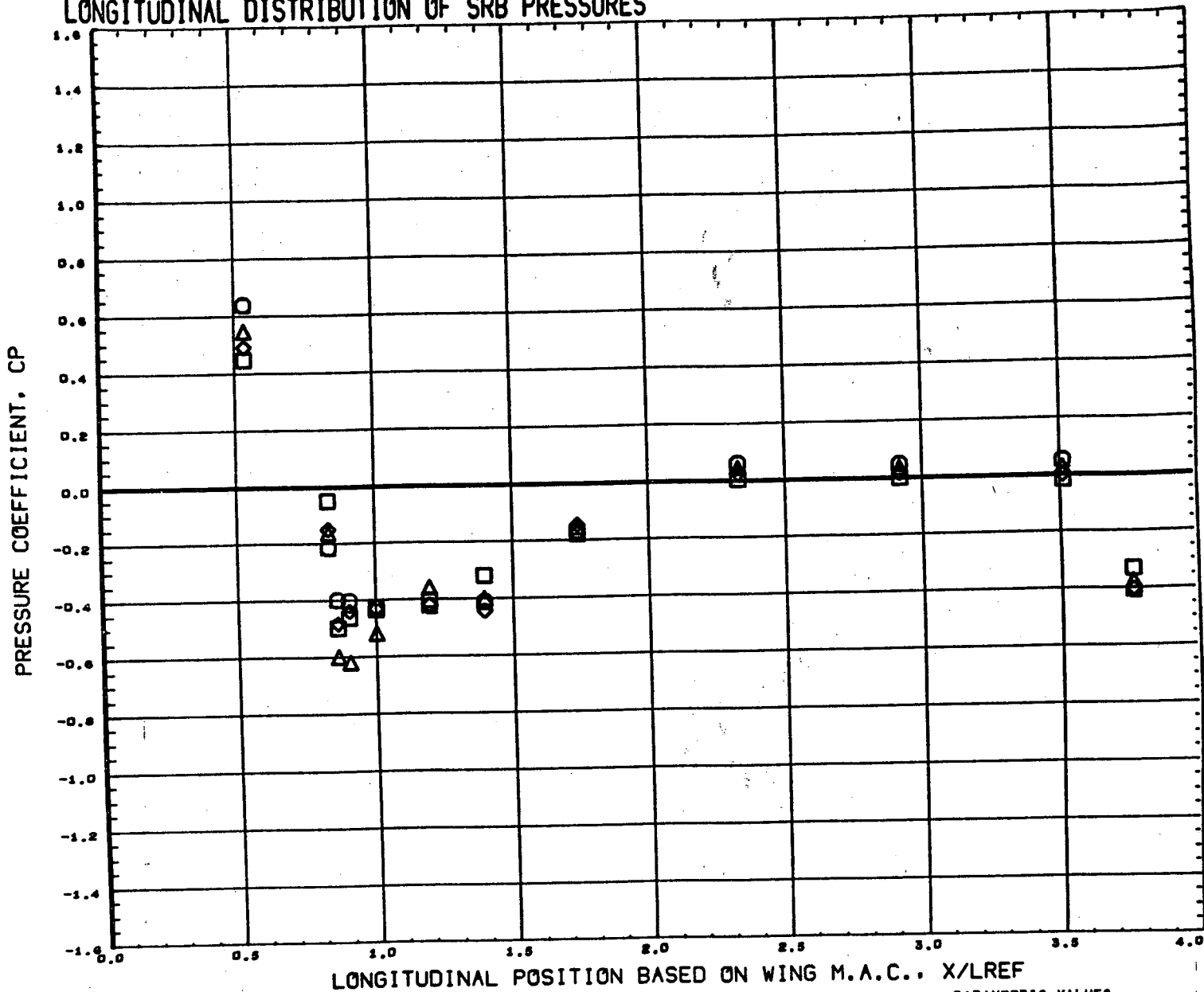
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES	
○	240.000	0.000	1.200	ALPHA	8.000
△	255.000			SRBGAP	0.025
◇	270.000				
□	285.000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



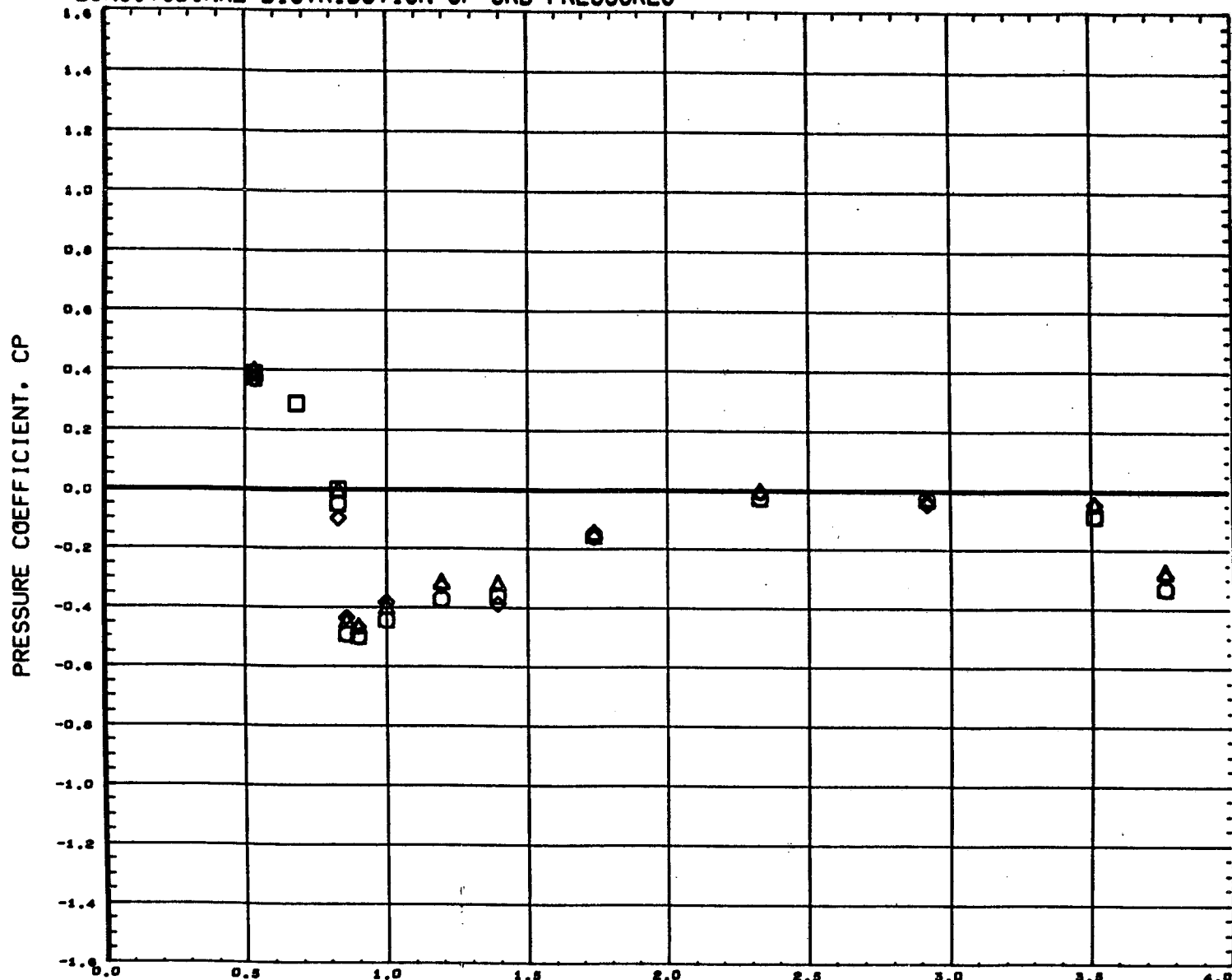
SYMBOL	PHI	BETA	MACH	ALPHA	PARAMETRIC VALUES	
○	300,000	0,000	1,200	6,000	SRB CAP	ORB INC - 1,500
△	315,000			0,025		
◇	330,000					
□	345,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 603

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	0.000	4.000	1.200
△	15.000		
◇	30.000		
□	45.000		

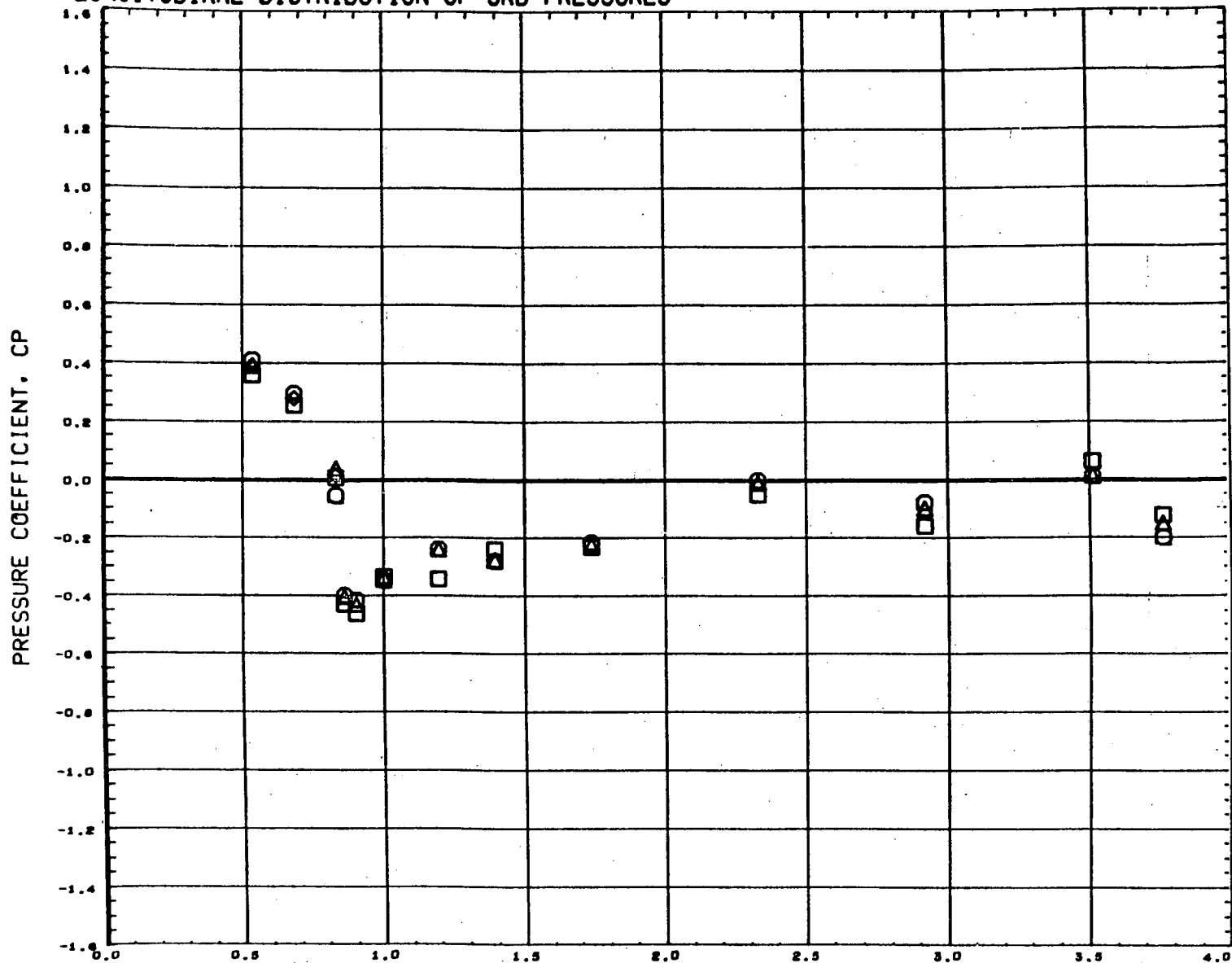
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.900
SRB GAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 604

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

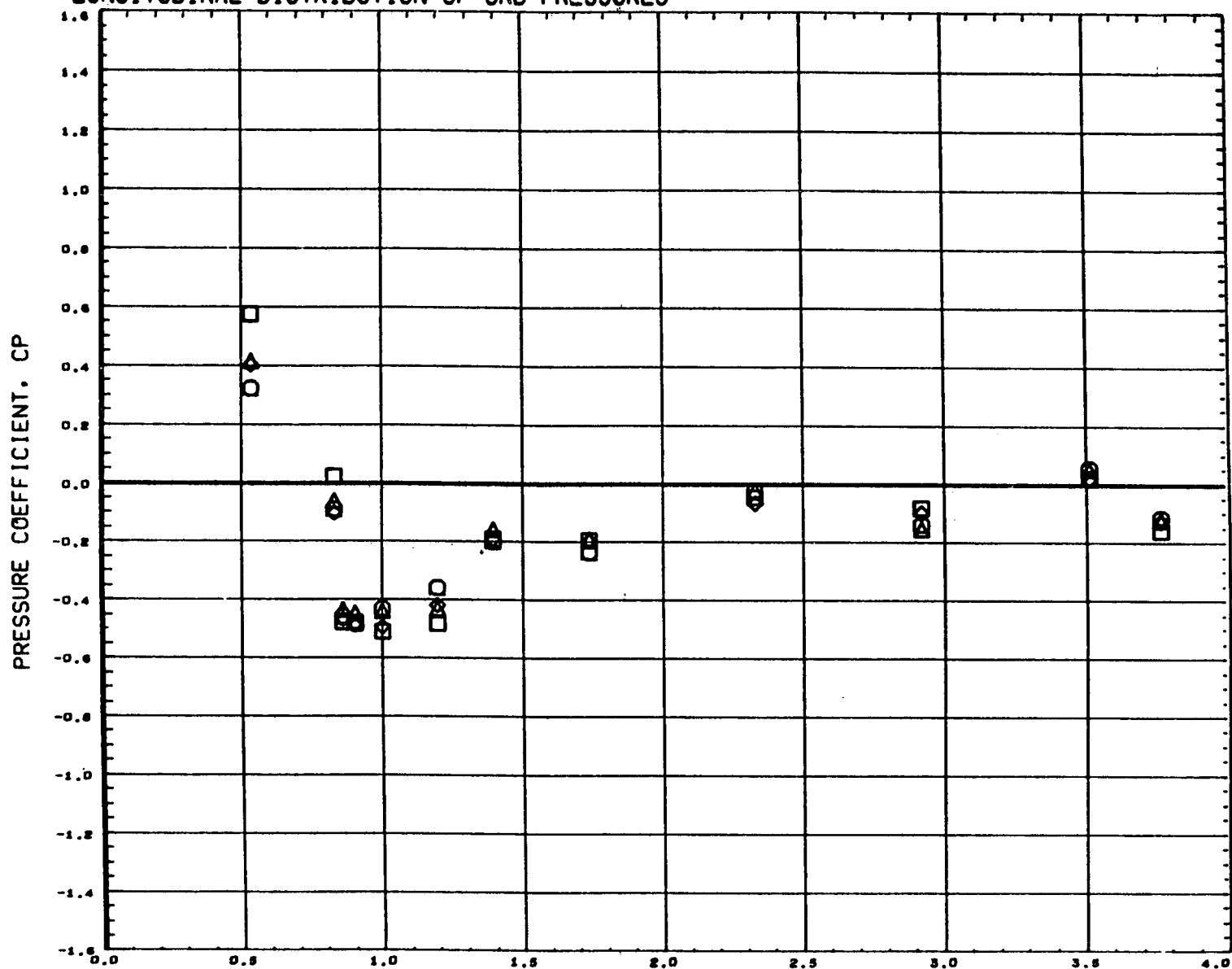


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	60.000	4.000	1.200	ALPHA 6.000 ORBINC - 1.500
△	75.000			SRBGAP 0.025
◇	90.000			
◻	105.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

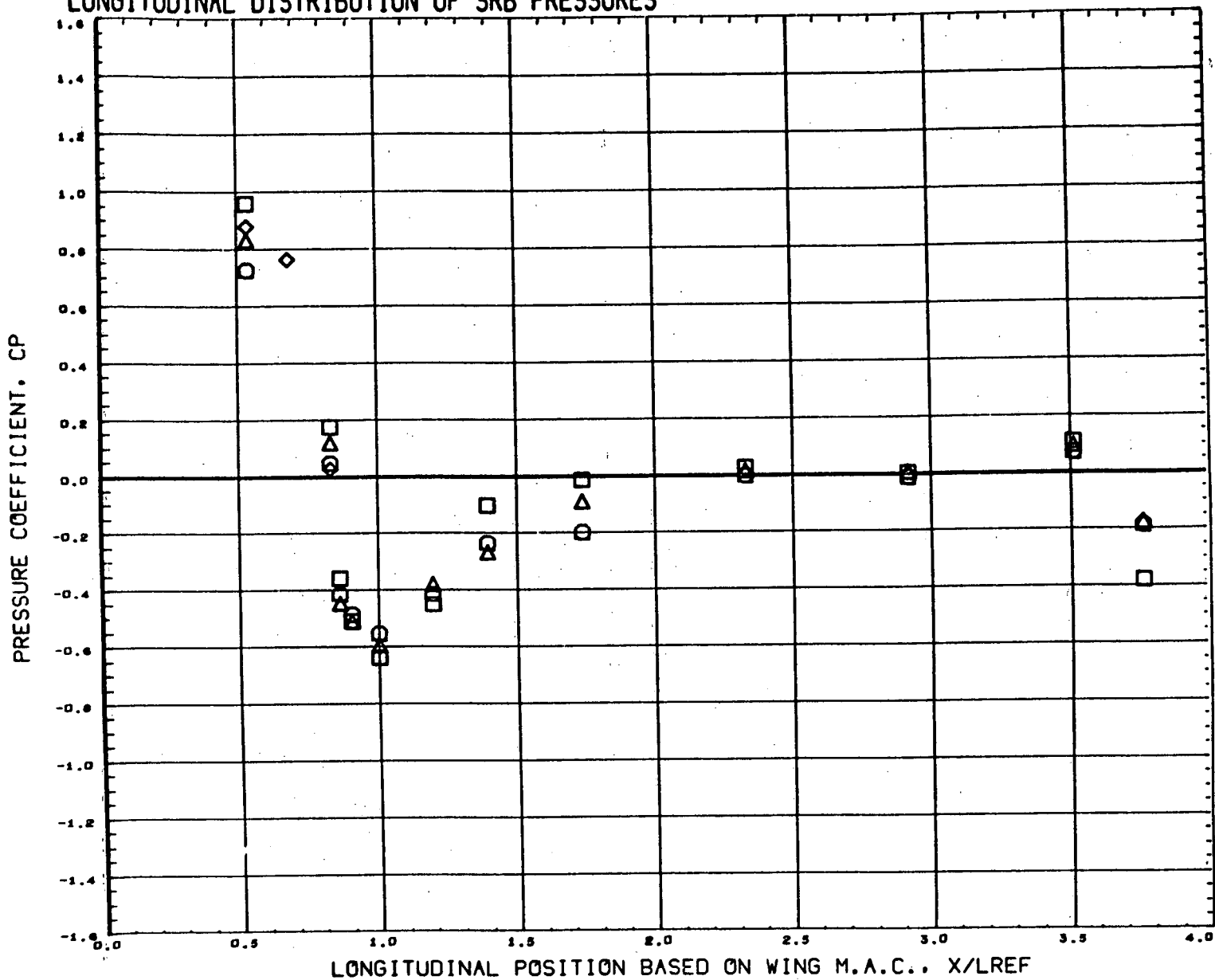
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES		
○	120,000	4,000	1.200	ALPHA	6.000	ORBINC - 1.500
◇	135,000			SRBCAP	0.025	
△	150,000					
□	165,000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

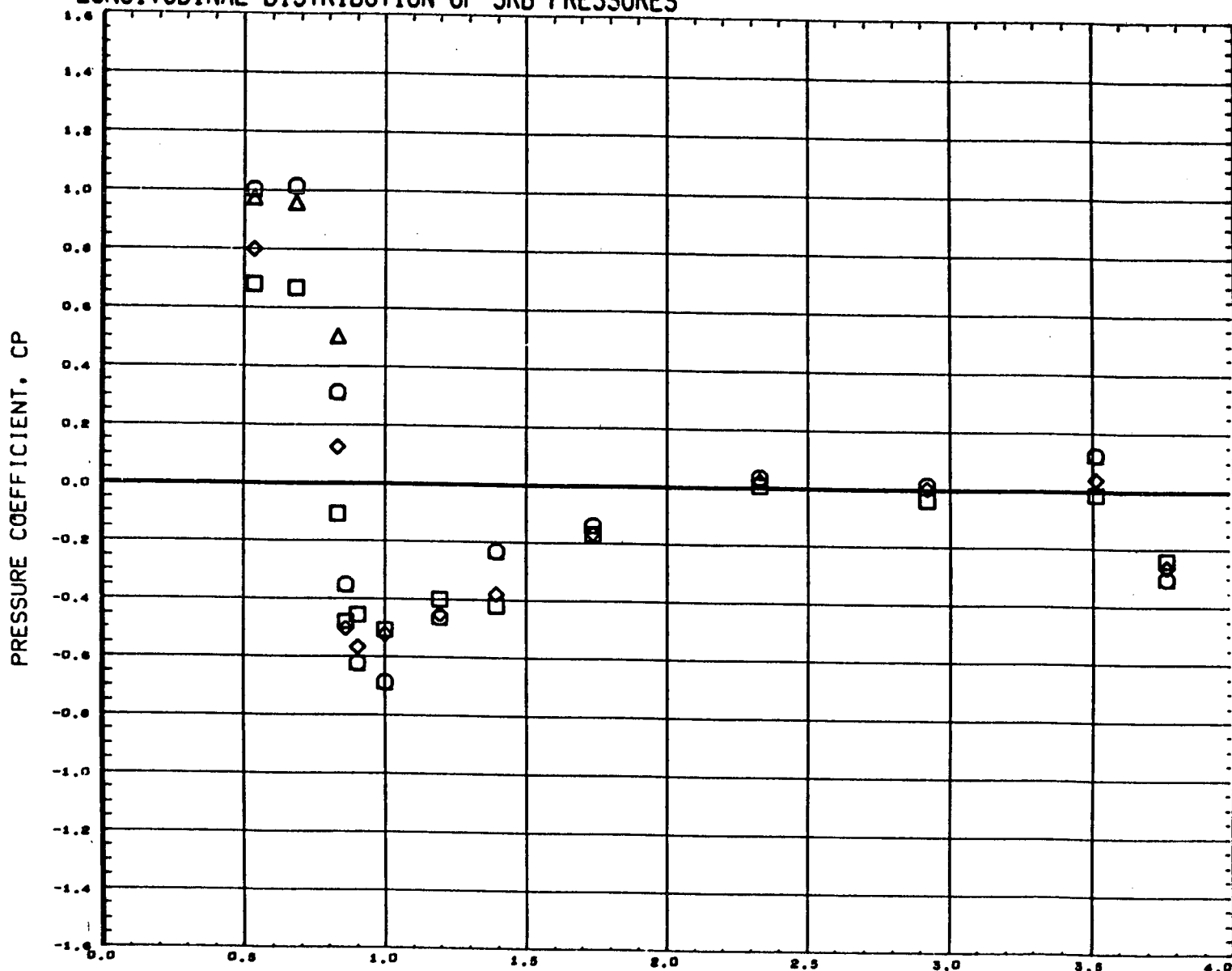


SYMBOL	PHI	BETA	MACH
○	180.000	4.000	1.200
△	195.000		
◇	210.000		
□	225.000		

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



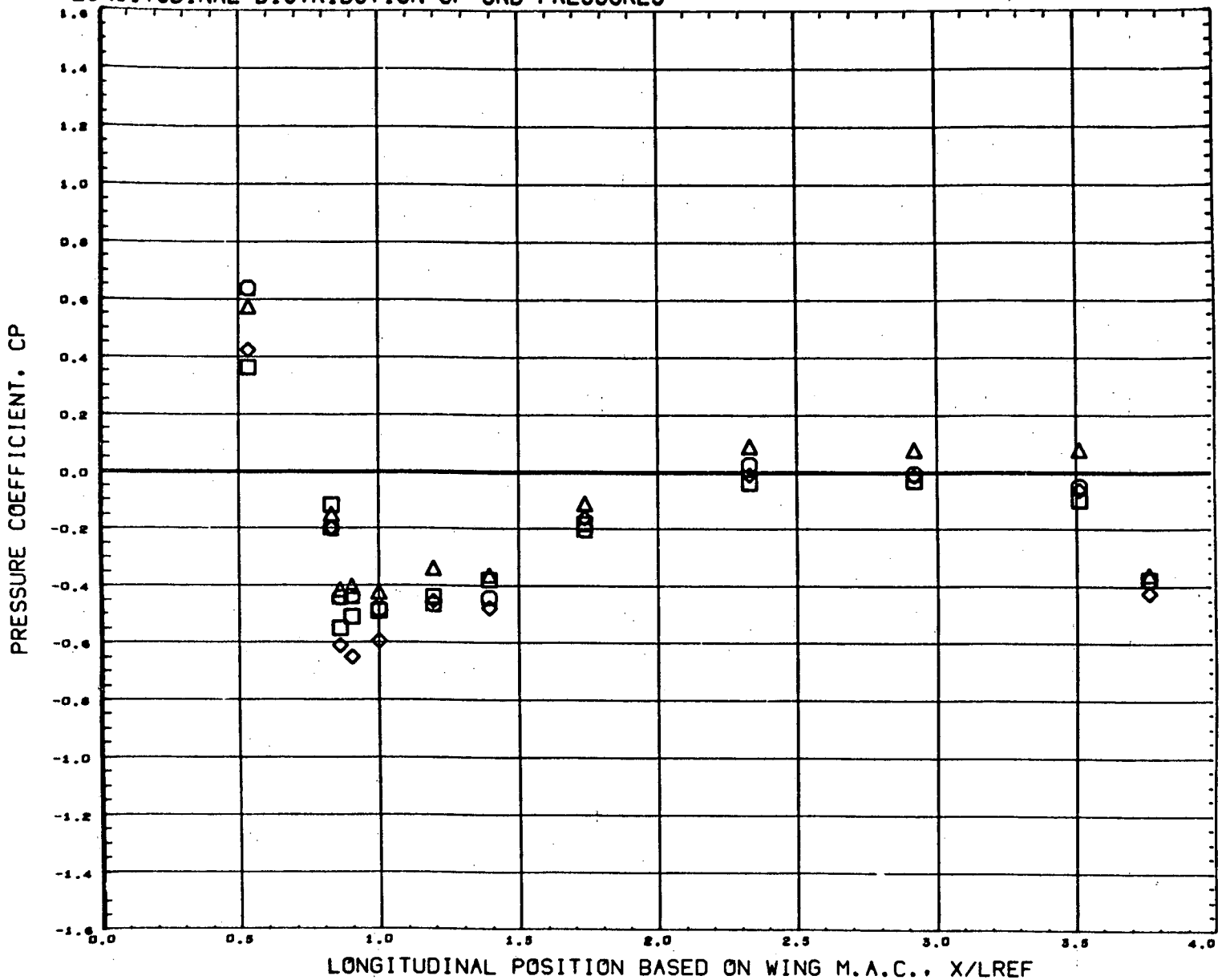
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH
○	240.000	4.000	1.200
△	255.000		
◇	270.000		
□	285.000		

PARAMETRIC VALUES	
ALPHA	6.000 ORBINC - 1.500
SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	300.000	4.000	1.200
△	315.000		
◇	330.000		
□	345.000		

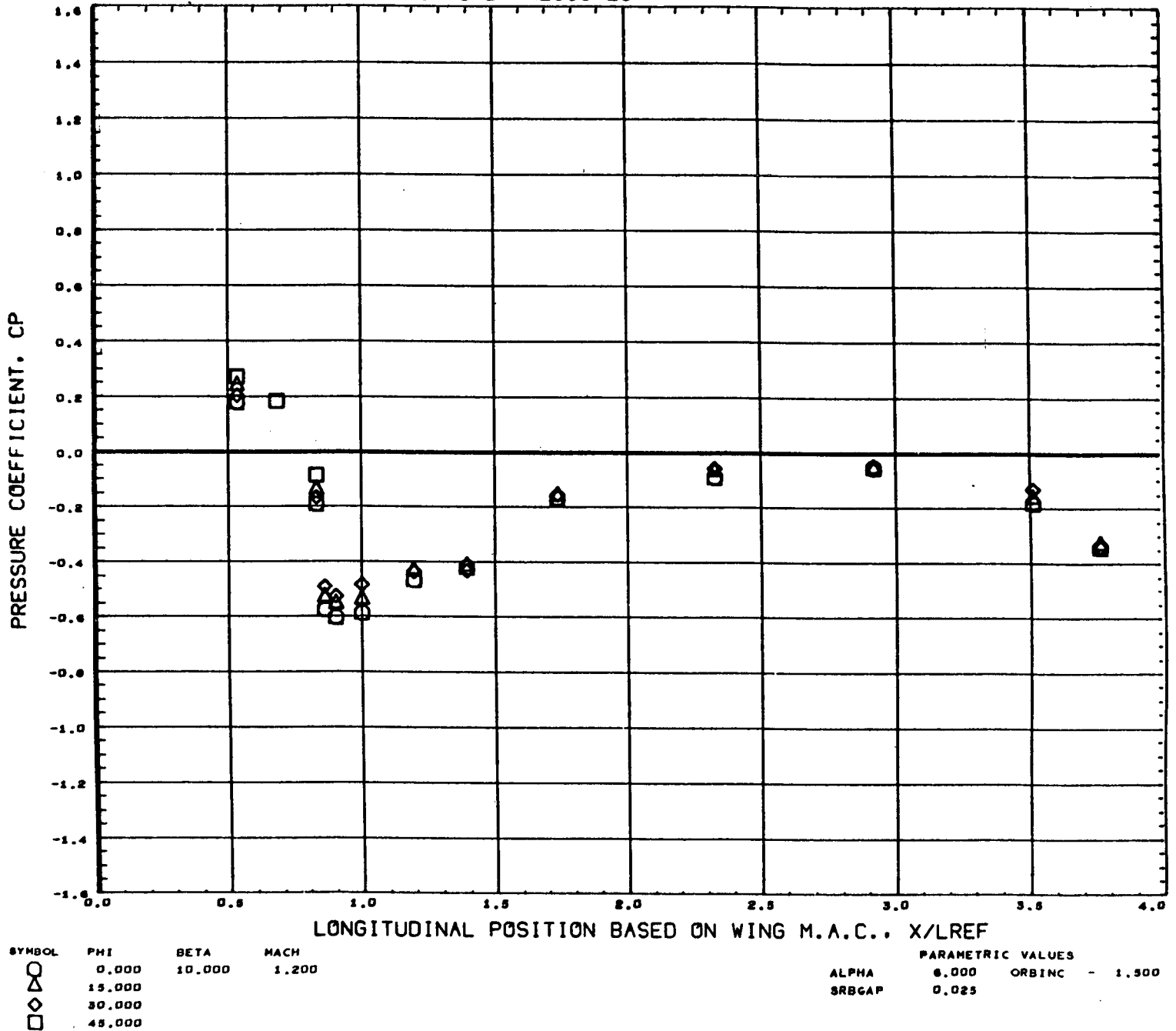
PARAMETRIC VALUES:
 ALPHA 6.000 ORBINC - 1.500
 SRBCAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

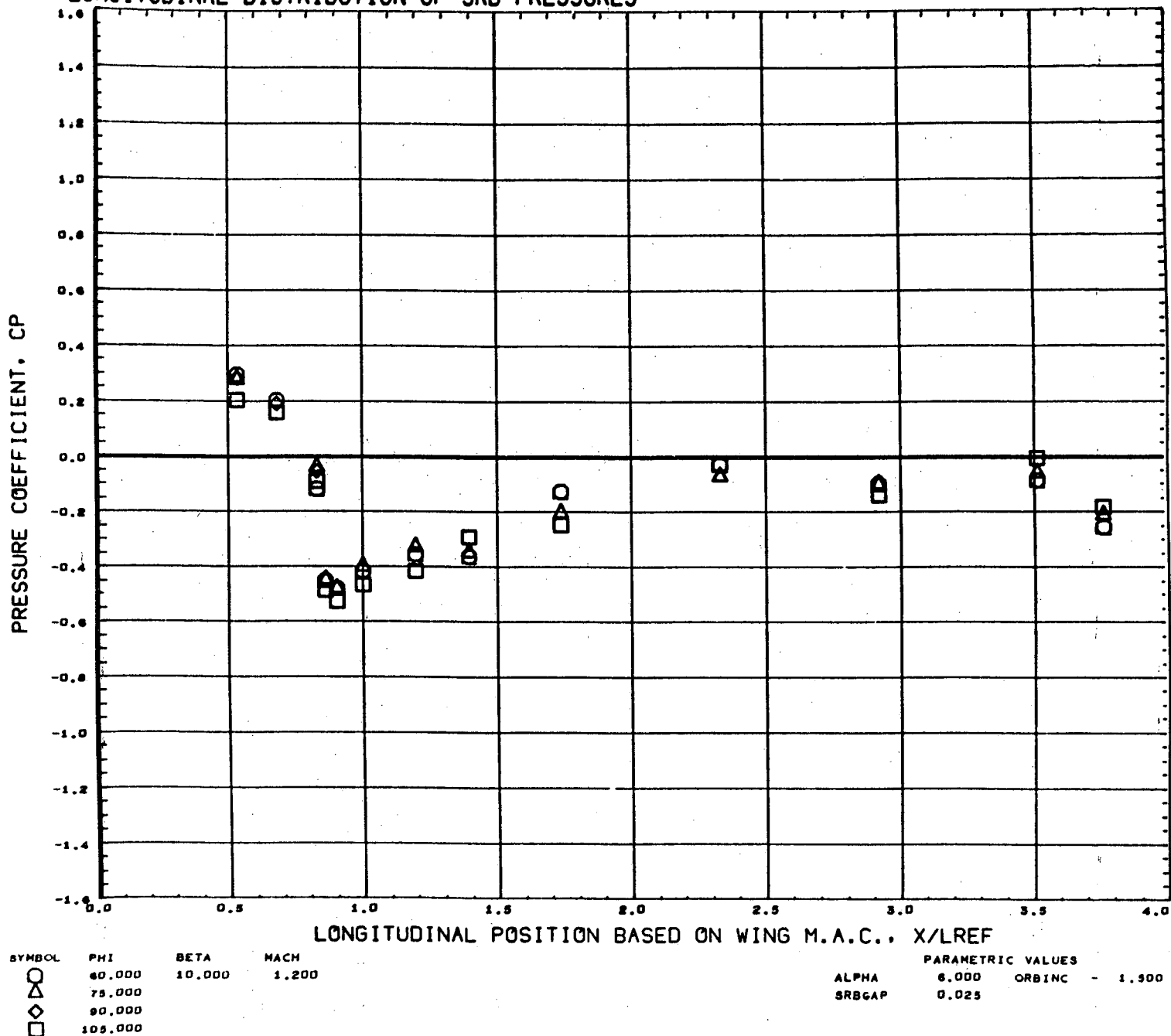
PAGE 609

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



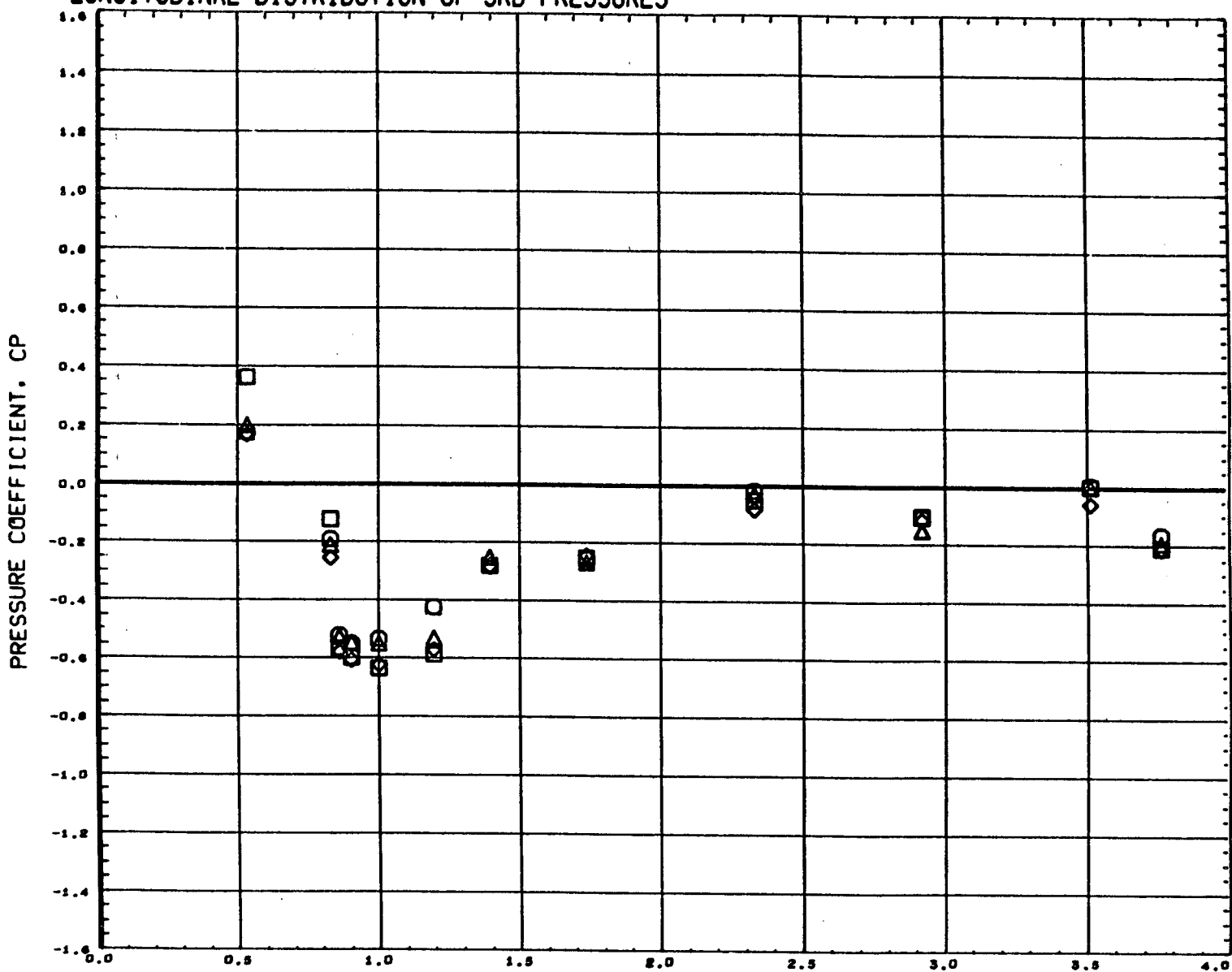
NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

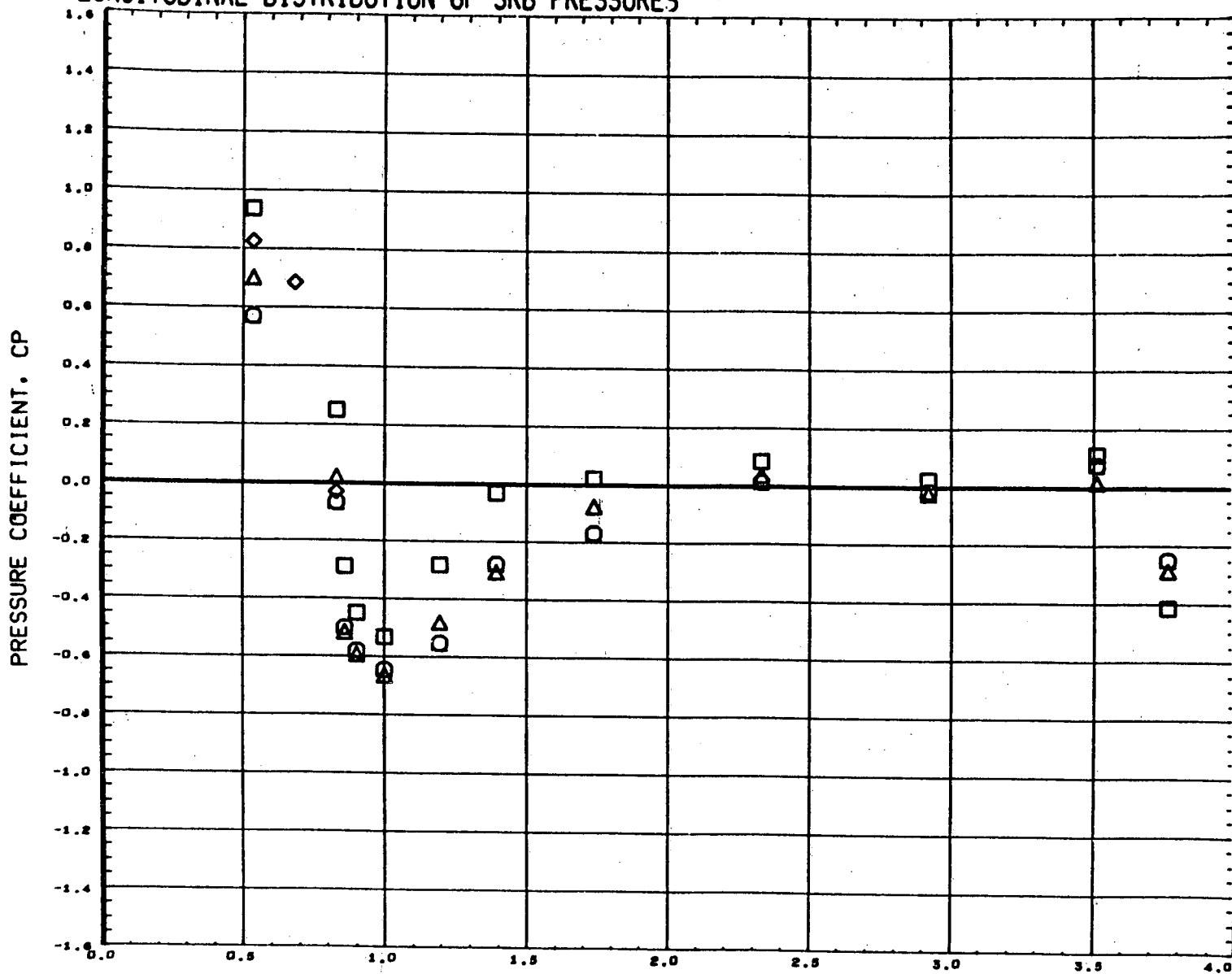


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	PHI	BETA	MACH	ALPHA	SRBCAP	PARAMETRIC VALUES
◇	120.000	10.000	1.200	6.000	0.025	ORBINC - 1.500
△	135.000					
○	150.000					
□	165.000					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH
○	180.000	10.000	1.200
△	195.000		
◇	210.000		
□	225.000		

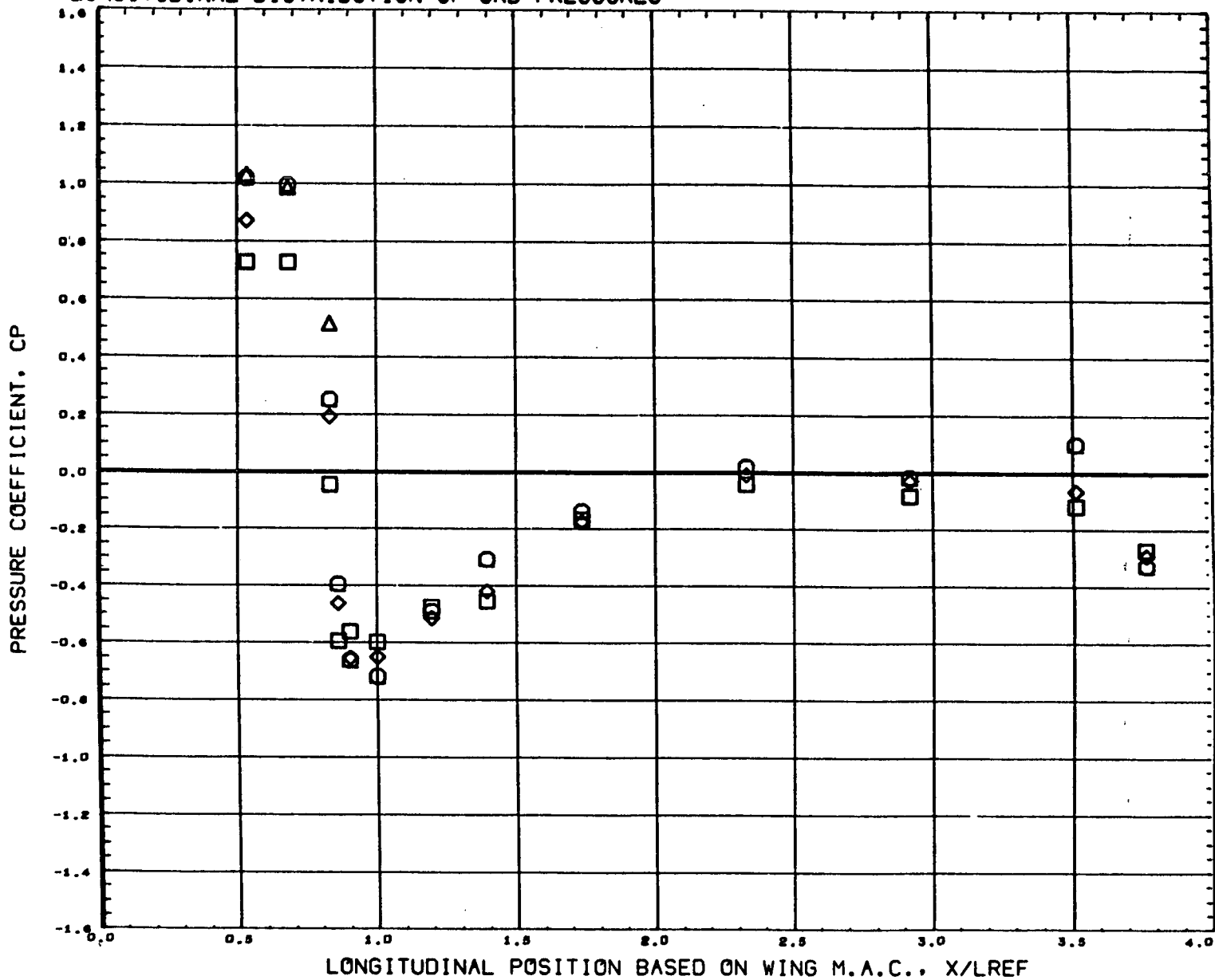
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.800
SRBCAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704SM)

PAGE 613

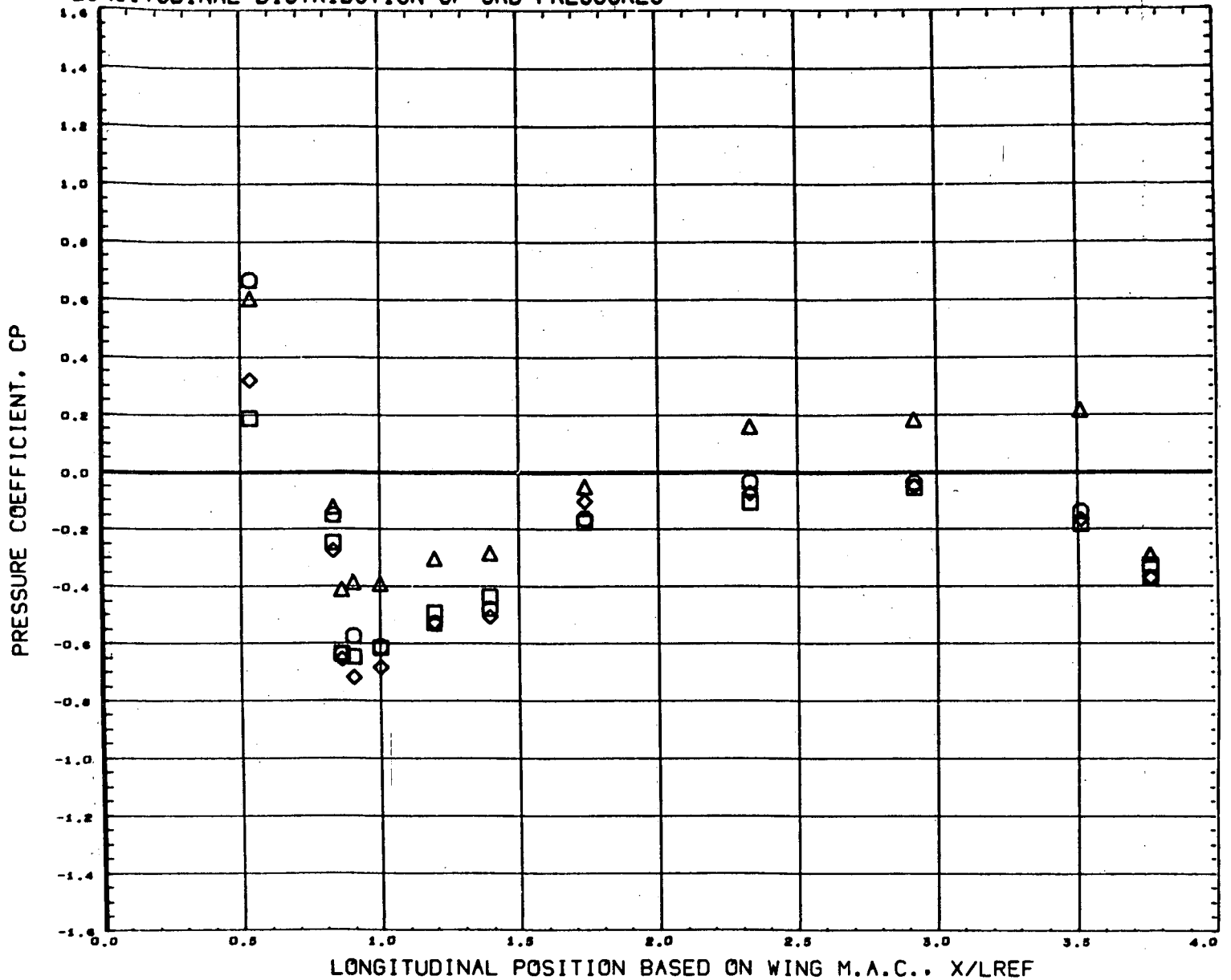
LONGITUDINAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	PHI	BETA	MACH	PARAMETRIC VALUES
○	240.000	10.000	1.200	ALPHA 6.000 ORBINC - 1.500
△	255.000			SRBGAP 0.025
◇	270.000			
□	285.000			

NOTE- SRB NOSE LOCATED AT X/LREF=.369

LONGITUDINAL DISTRIBUTION OF SRB PRESSURES

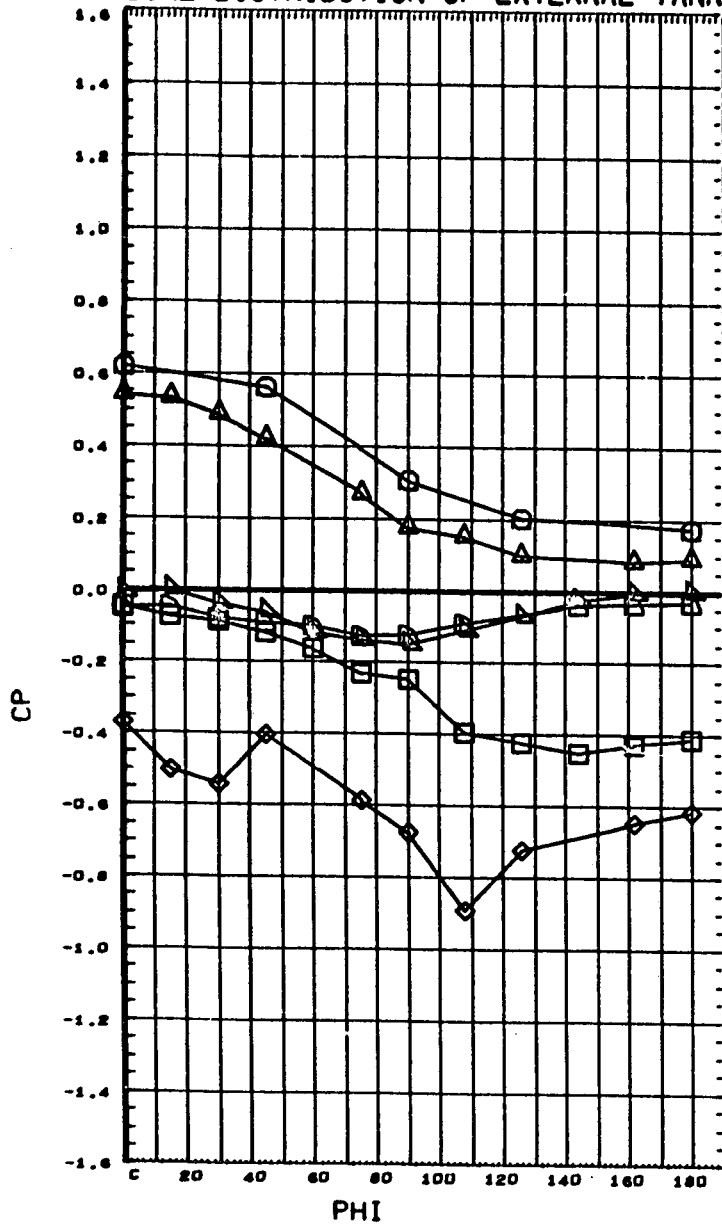


SYMBOL	PHI	BETA	MACH	ALPHA	PARAMETRIC VALUES
○	300,000	10,000	1.200	SRBCAP	6.000 ORBINC - 1.500
△	315,000				0.025
◇	330,000				
□	345,000				

NOTE- SRB NOSE LOCATED AT X/LREF=.369

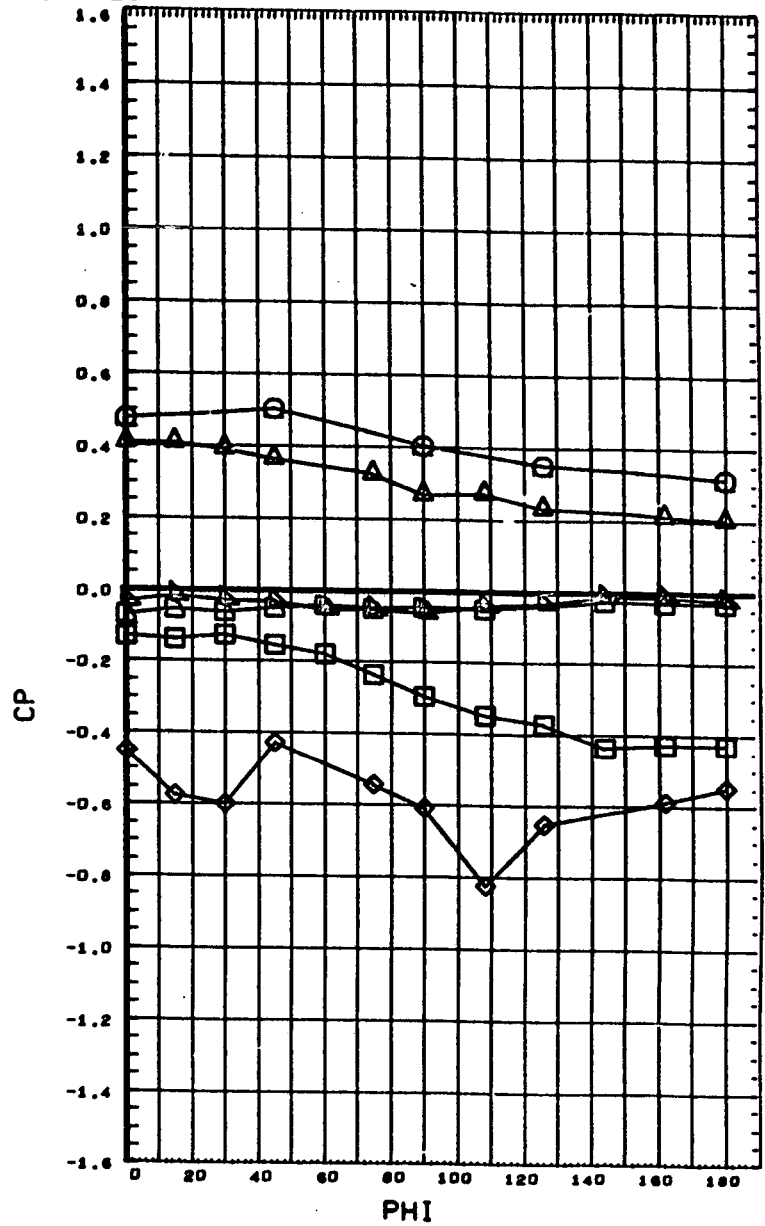
f

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	0.800
△	0.361	- 4.000	
□	0.790		
◇	1.000		
—	2.162		
	3.148	REFERENCE FILE	

MSFC 543-EXTERNAL TANK ALONE, T1

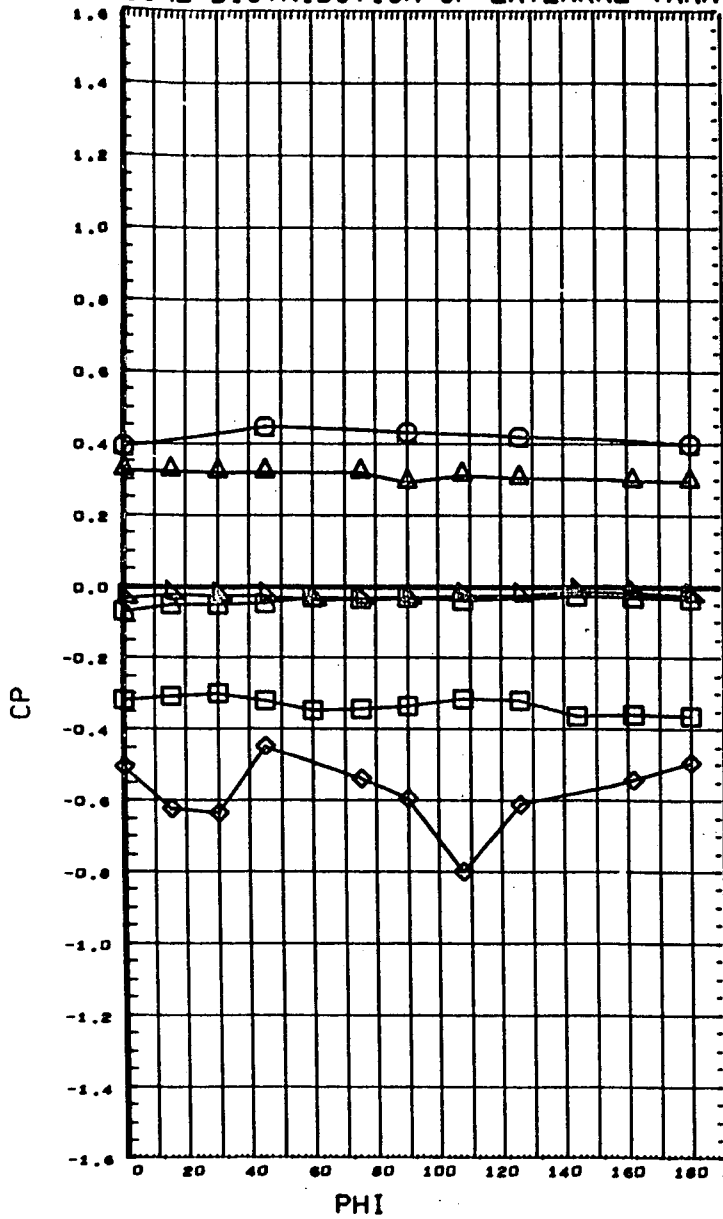


PARAMETRIC VALUES
BETA 0.000

(R70000)

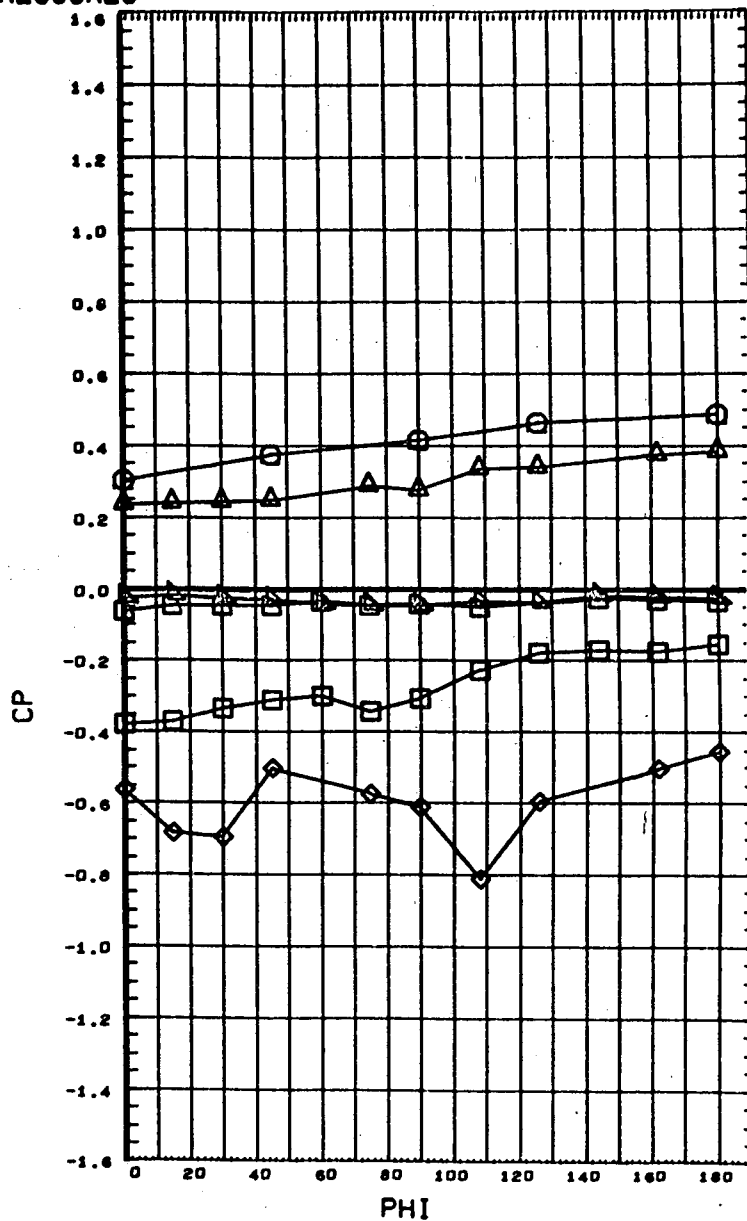
PAGE 616

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	0.900
△	0.361	4.000	
□	0.790		
◇	1.068		
◇	2.162		
◇	3.148	REFERENCE FILE	

MSFC 543-EXTERNAL TANK ALONE, T1

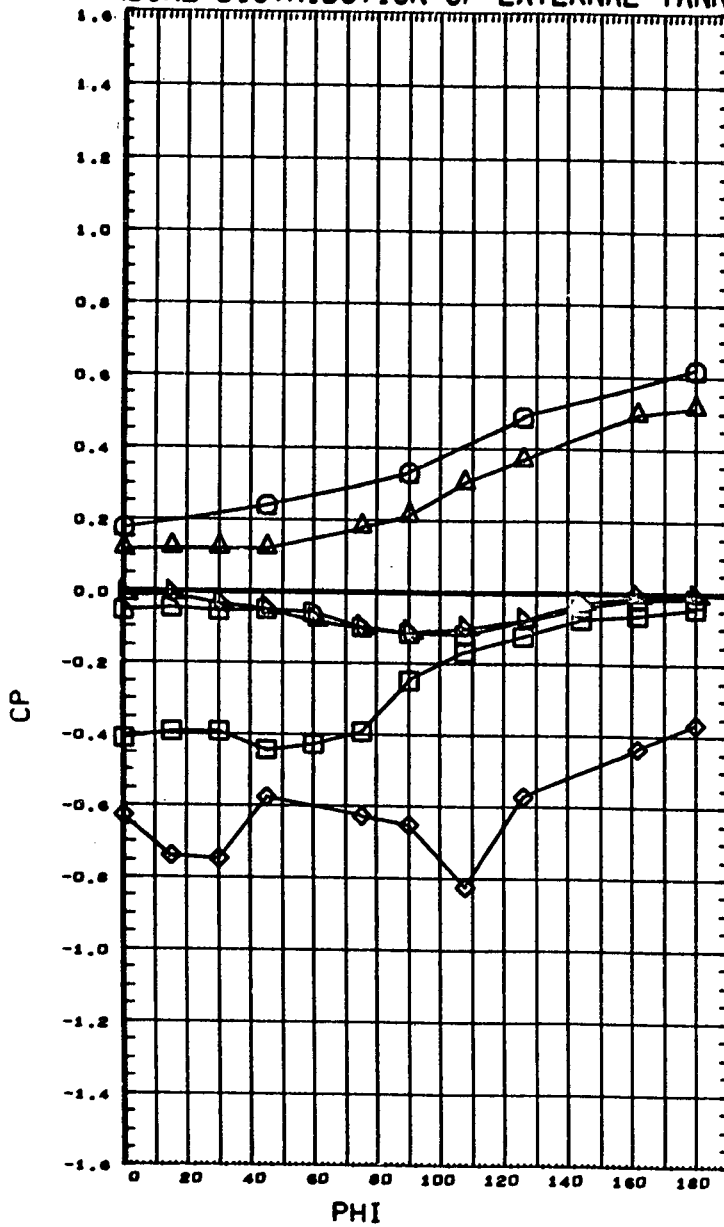


BETA
PARAMETRIC VALUES
0.000

(R70000)

PAGE 617

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	0.000
△	0.361		
□	0.790		
◇	1.068		
●	2.162		
▲	3.148		

REFERENCE FILE

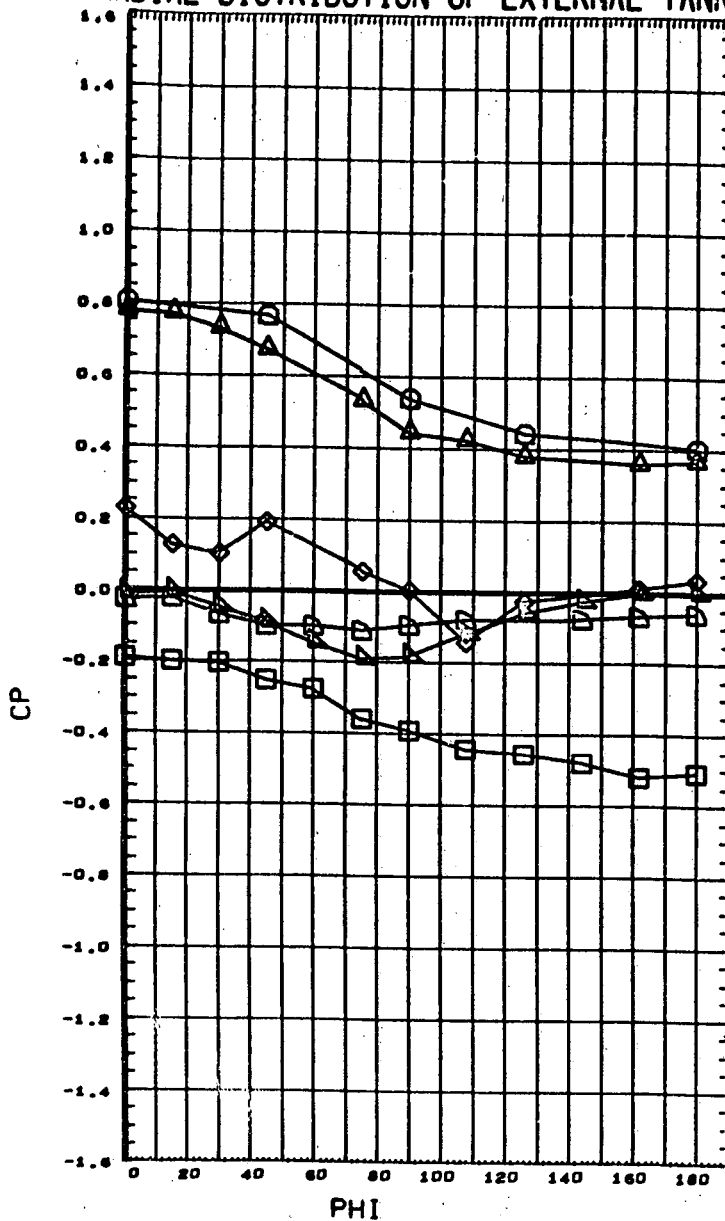
BETA PARAMETRIC VALUES
0.000

MSFC 543-EXTERNAL TANK ALONE. T1

(R70000)

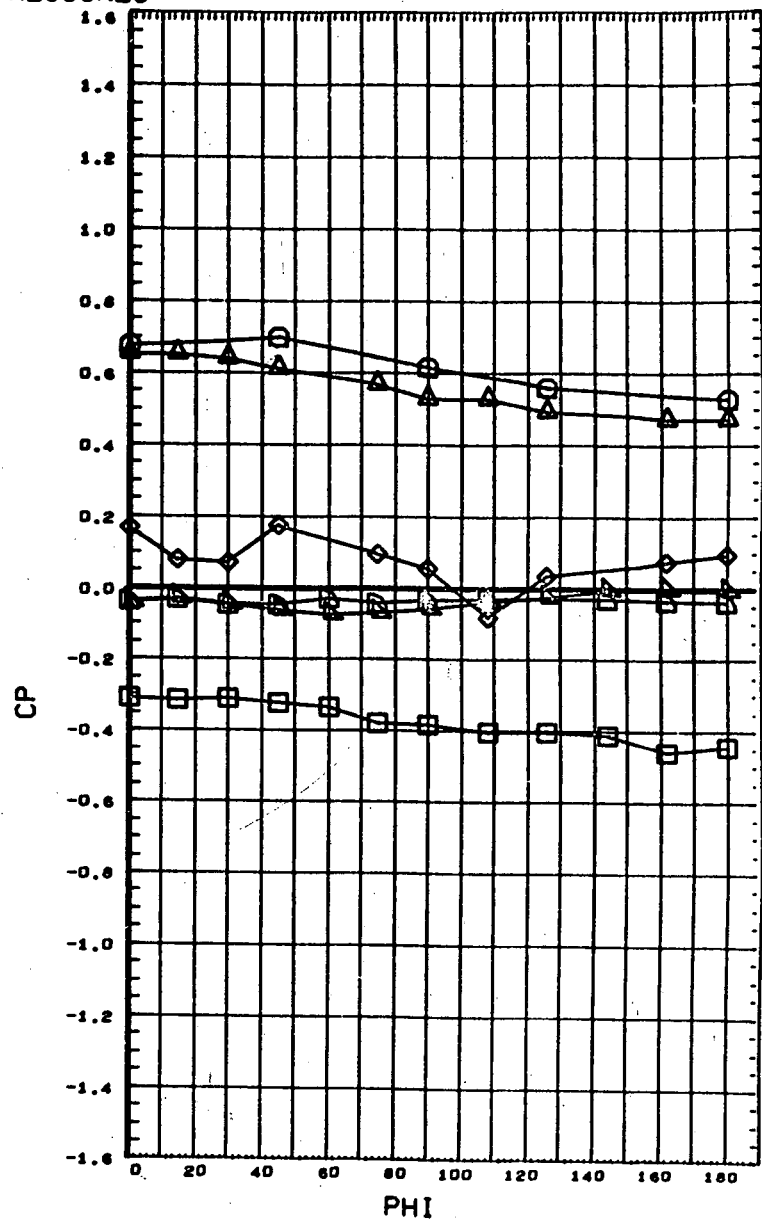
PAGE 618

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	1.200
△	0.361	- 4.000	
◇	0.790		
□	1.060		
▽	2.162		
◇	3.148	REFERENCE FILE	

MSFC 543-EXTERNAL TANK ALONE. T1

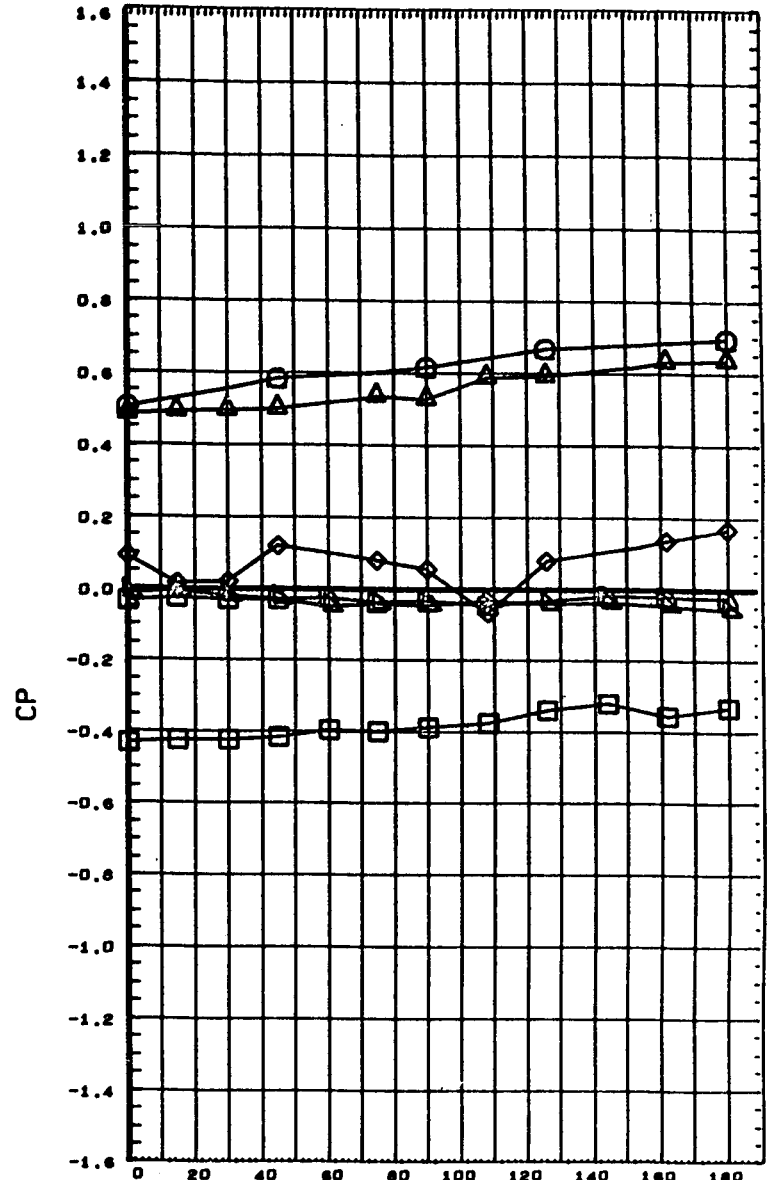
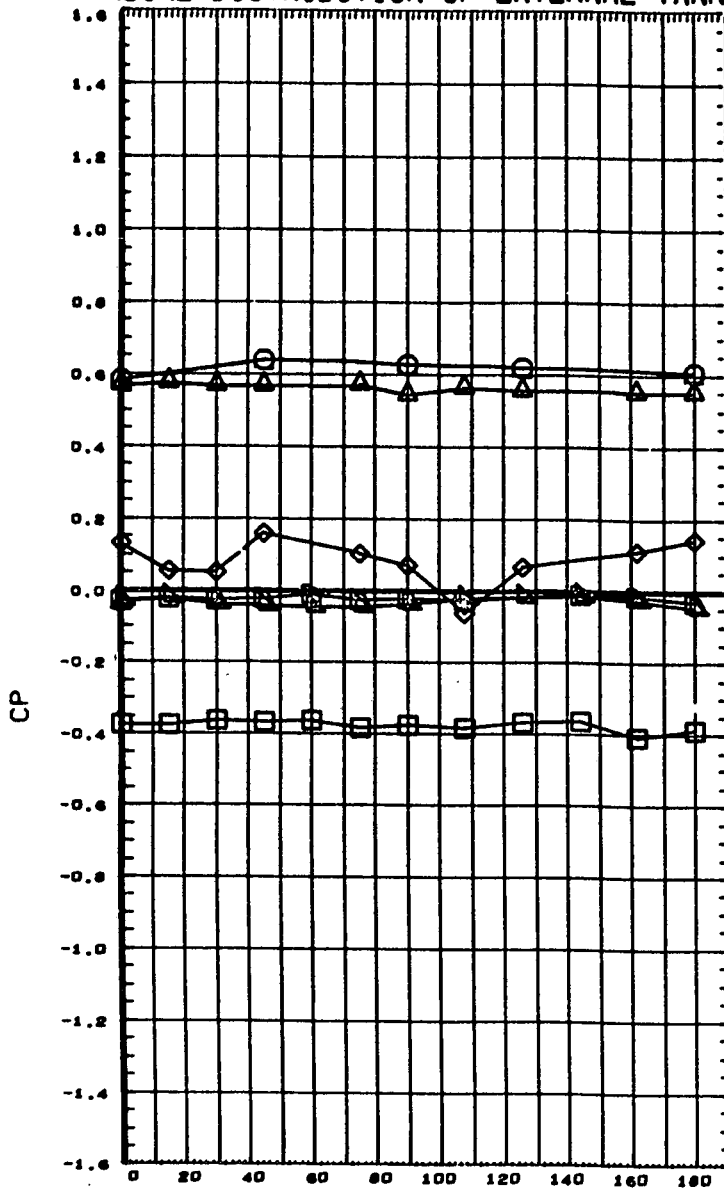


BETA
PARAMETRIC VALUES
0.000

(R70000)

PAGE 619

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.060		
	2.162		
	3.148		

REFERENCE FILE

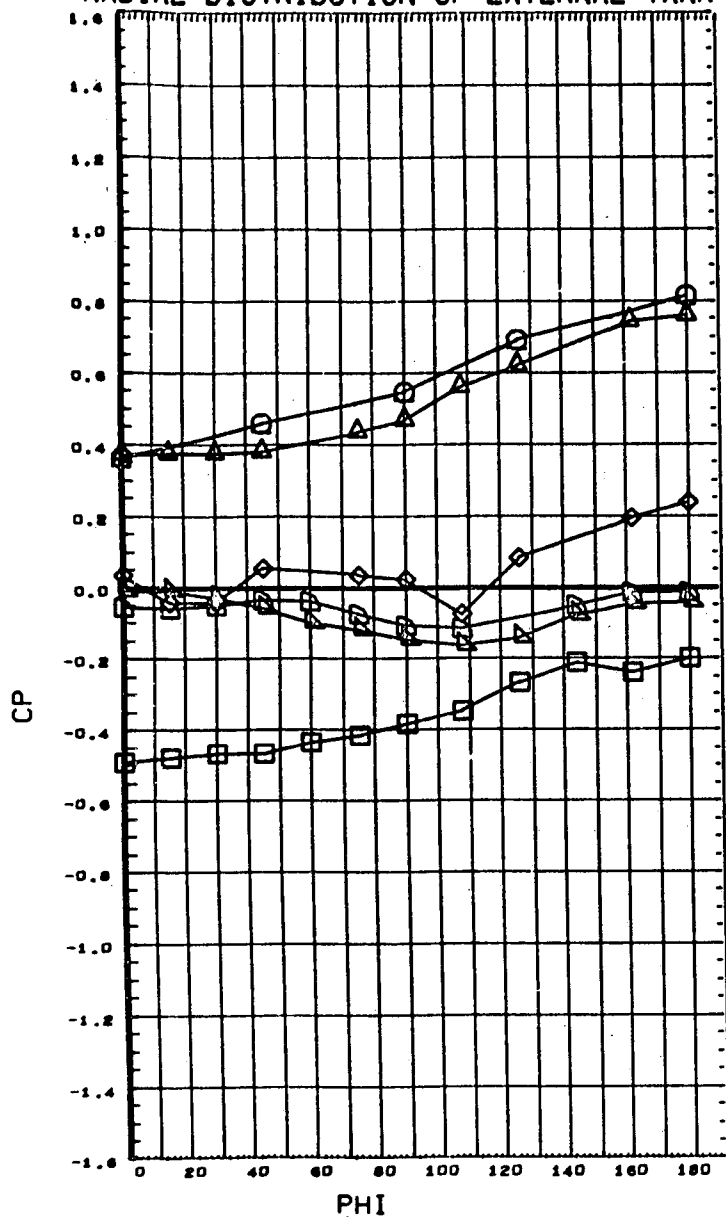
PARAMETRIC VALUES
BETA 0.000

MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

PAGE 620

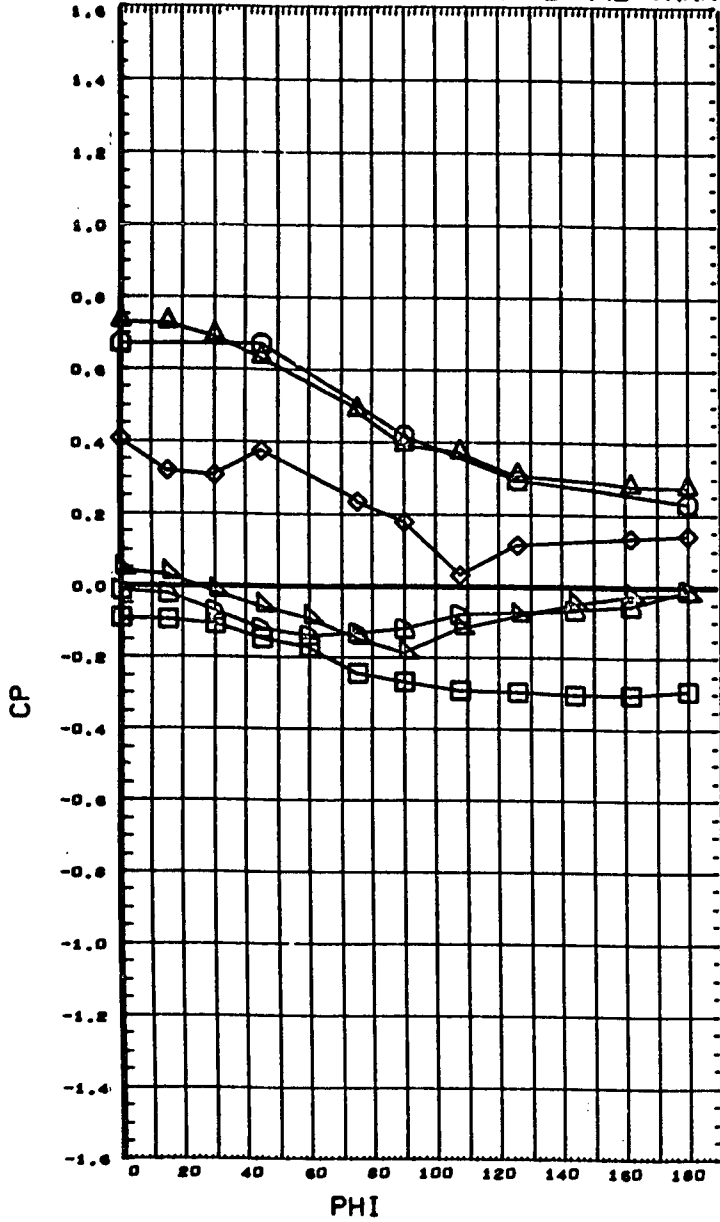
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



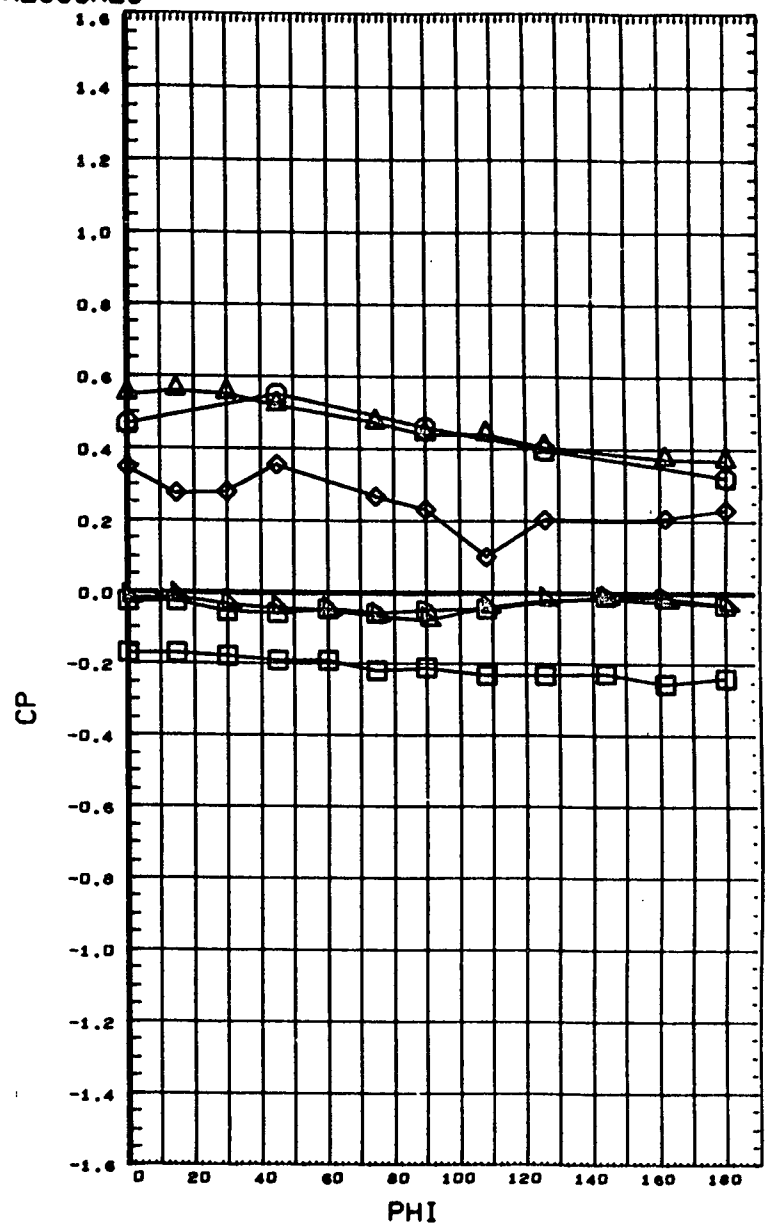
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.200
△	0.361		
◇	0.790		
□	1.068		
▽	2.162		
+	3.148	REFERENCE FILE	

BETA
PARAMETRIC VALUES
0.000

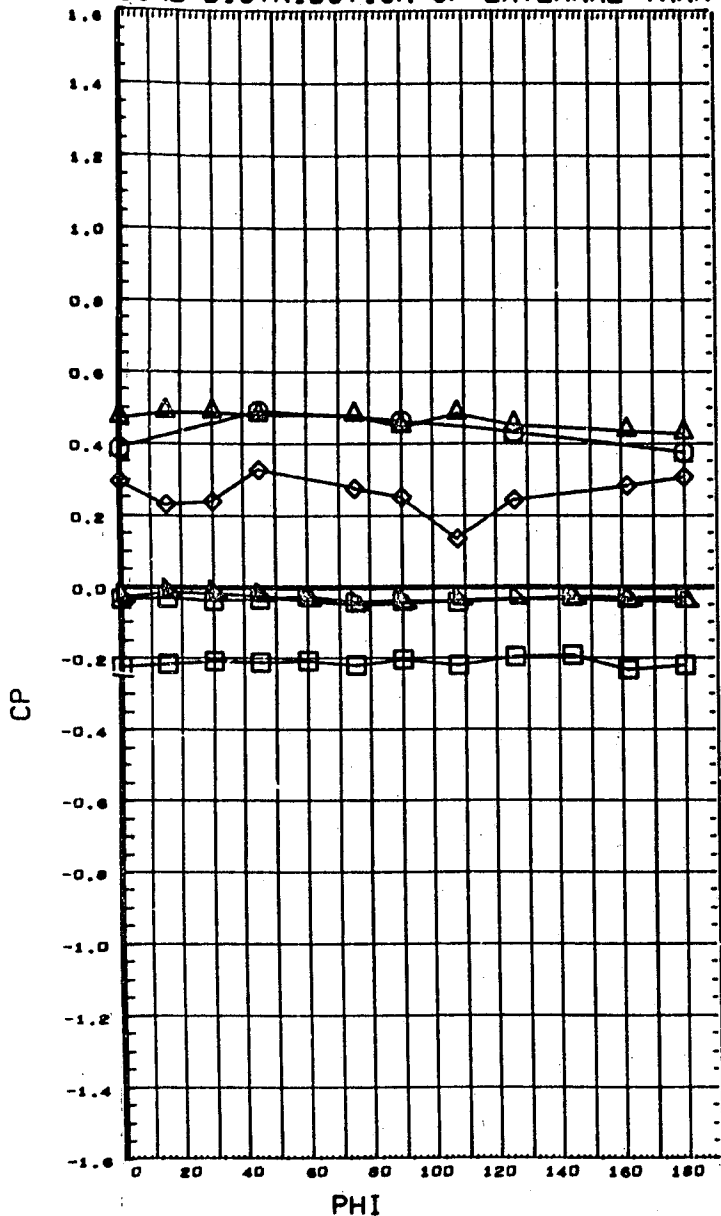
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	1.460
△	0.361	- 4.000	
◇	0.790		
□	1.066		
▽	2.162		
◇	3.148	REFERENCE FILE	

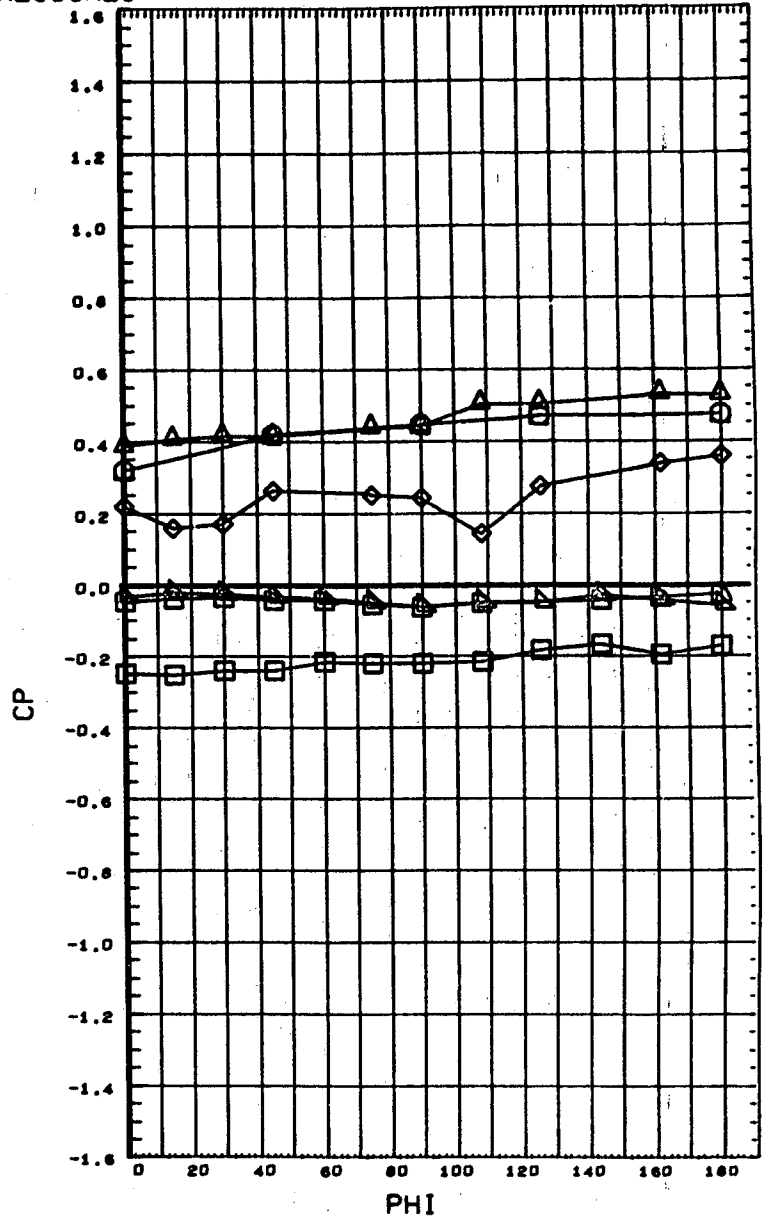


RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
△	0.164	0.000	1.460
○	0.361	4.000	
◇	0.790		
□	1.068		
—	2.162		
	3.148	REFERENCE FILE	

MSFC 543-EXTERNAL TANK ALONE, T1

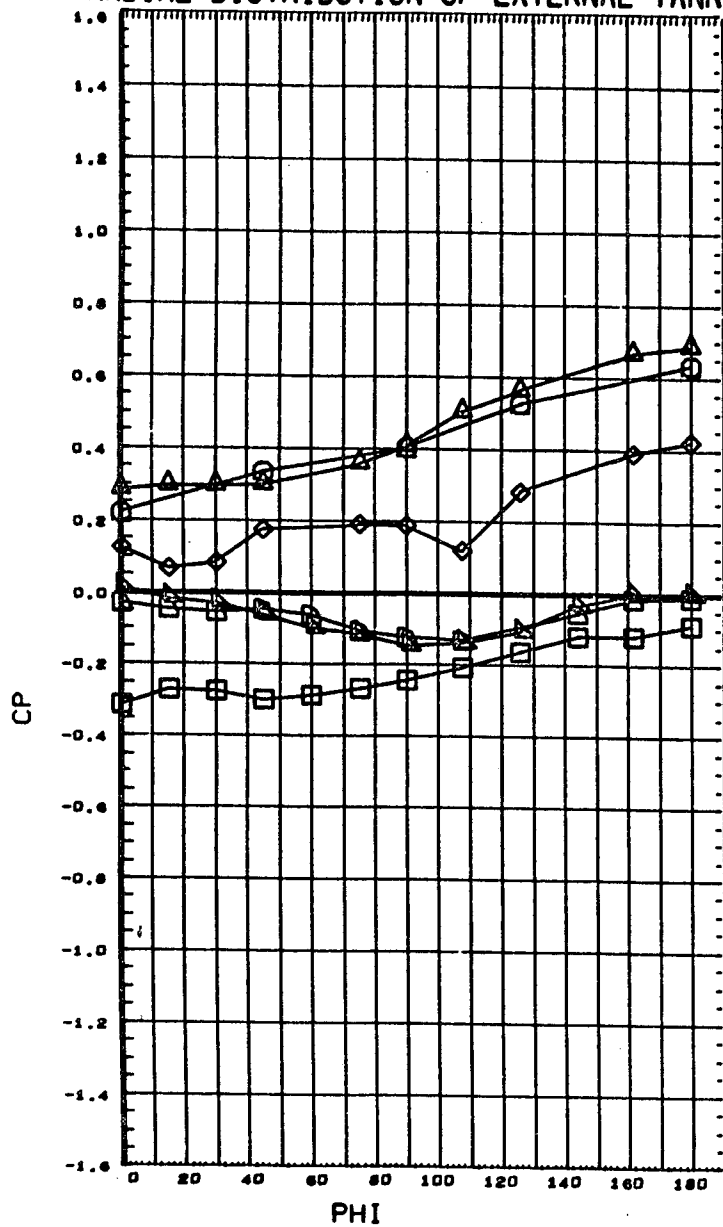


PARAMETRIC VALUES
BETA 0.000

(R70000)

PAGE 623

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	x/LREF	ALPHA	MACH
○	0.144	10.000	1.460
△	0.361		
◇	0.790		
□	1.068		
▽	2.162		
◇	3.148	REFERENCE FILE	

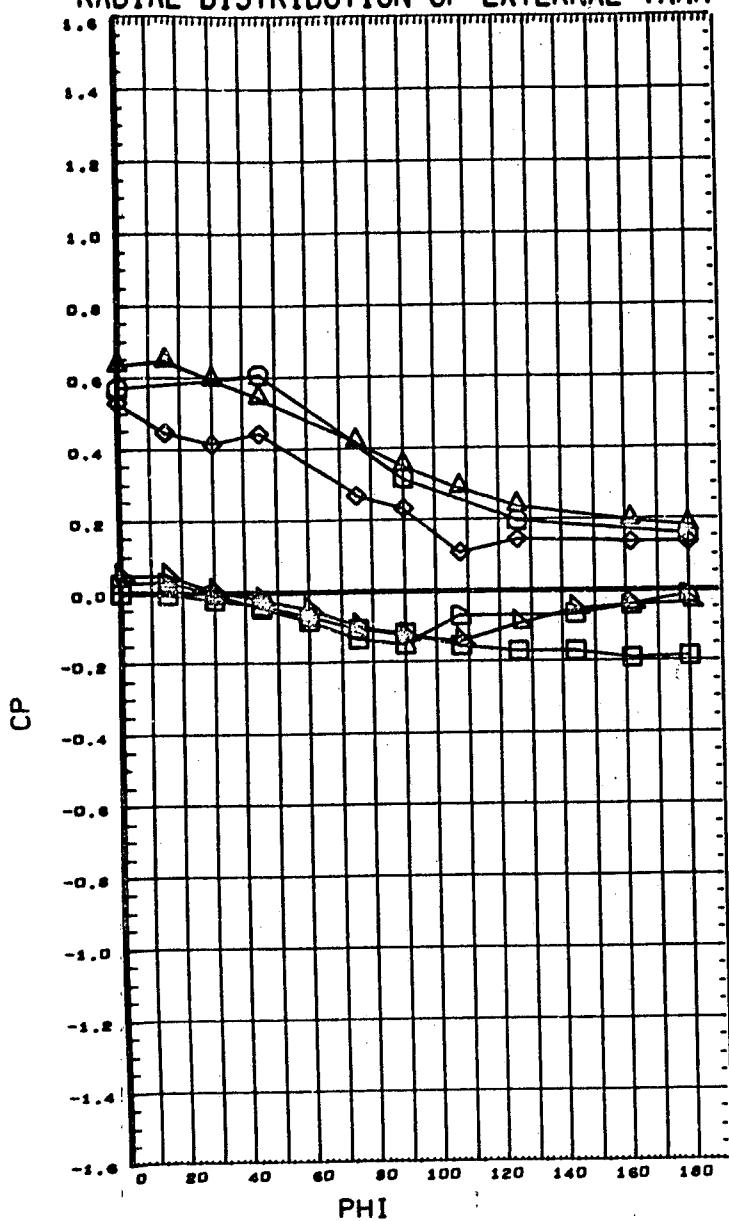
BETA PARAMETRIC VALUES
0.000

MSFC 543-EXTERNAL TANK ALONE, T1

(R70000)

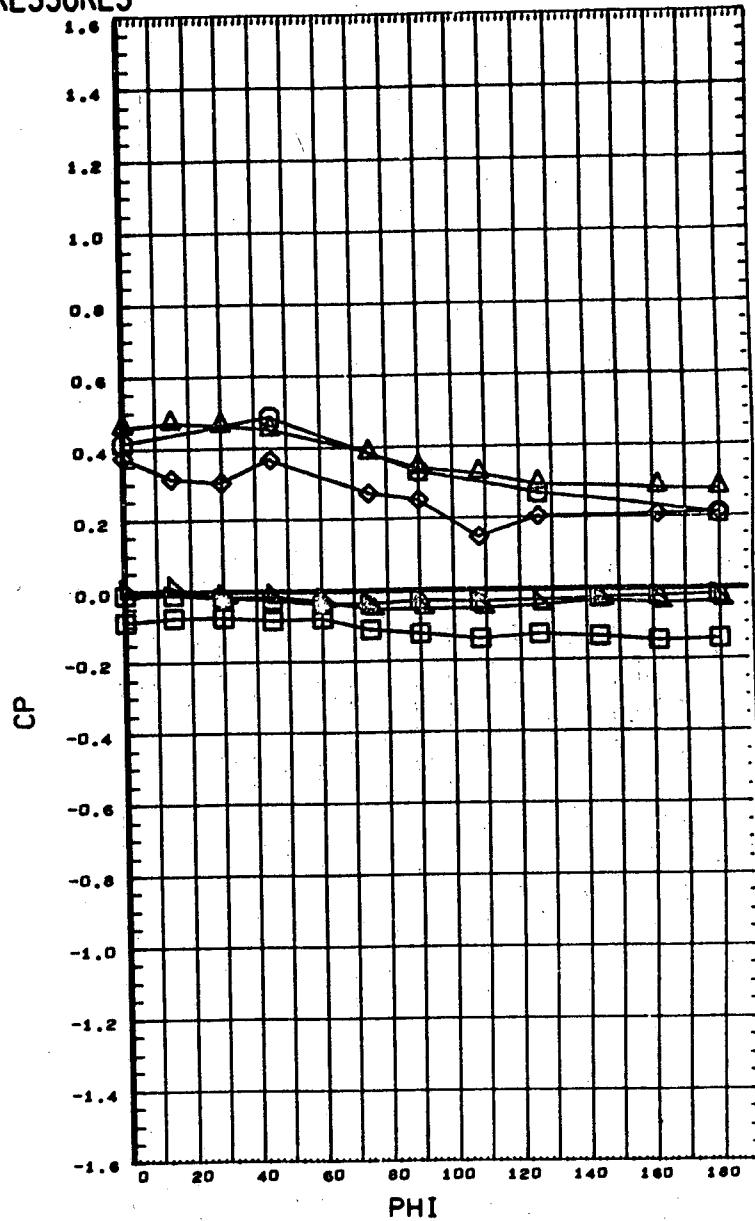
PAGE 624

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
△	0.164	- 10.000	1.960
◇	0.361	- 4.000	
○	0.790		
□	1.068		
■	2.162		
▣	3.148	REFERENCE FILE	

MSFC 543-EXTERNAL TANK ALONE, T1

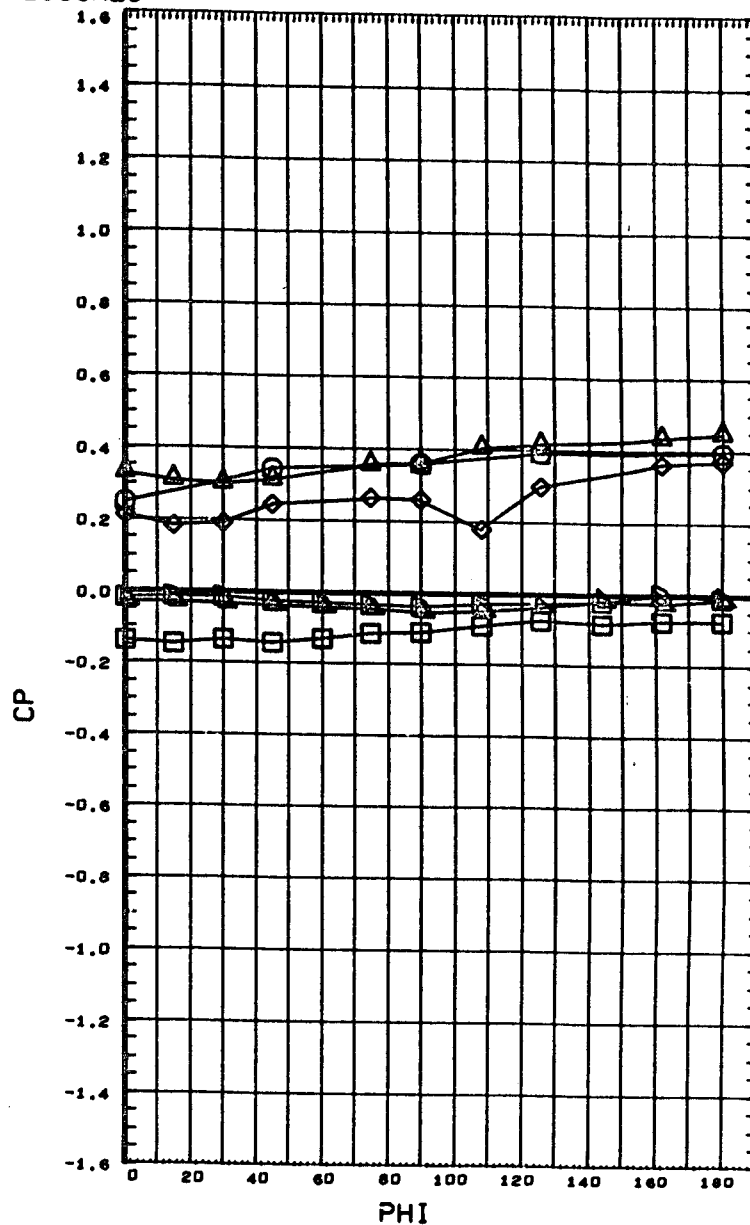
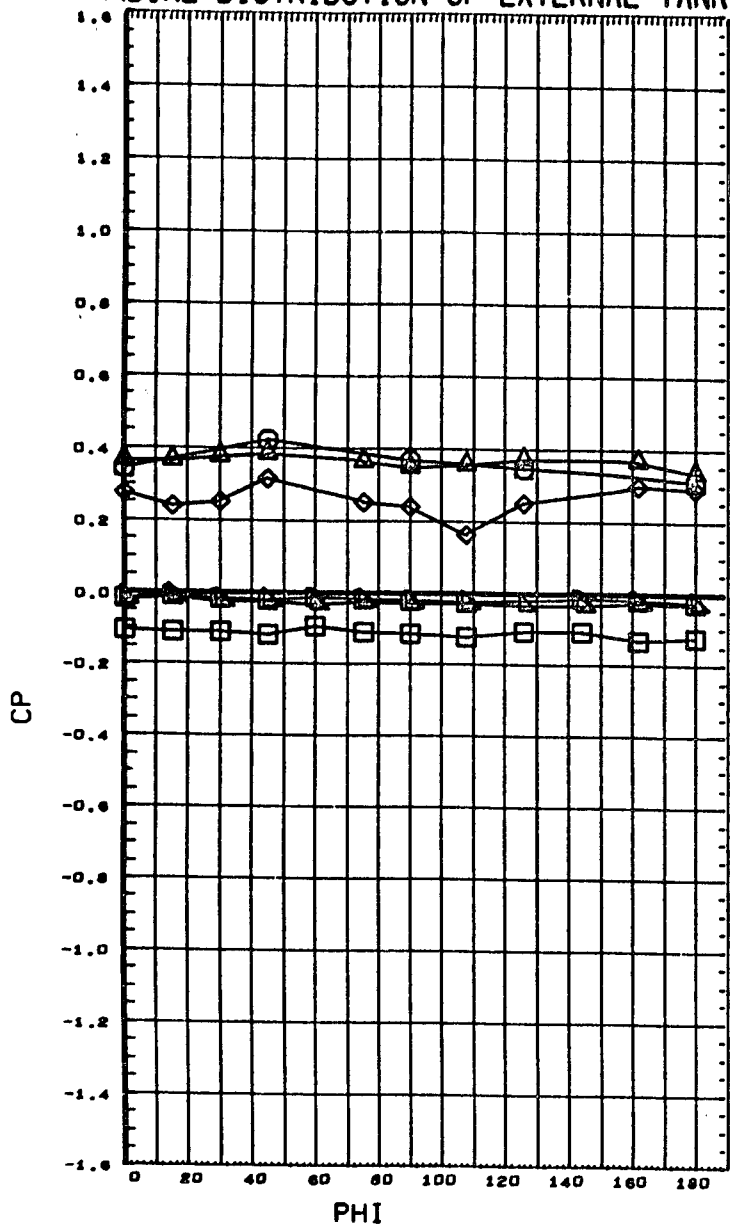


BETA
PARAMETRIC VALUES
0.000

(R70000)

PAGE 625

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
△	0.164	0.000	1.960
◇	0.361	4.000	
□	0.790		
○	1.060		
	2.162		
	3.146		
	REFERENCE FILE		

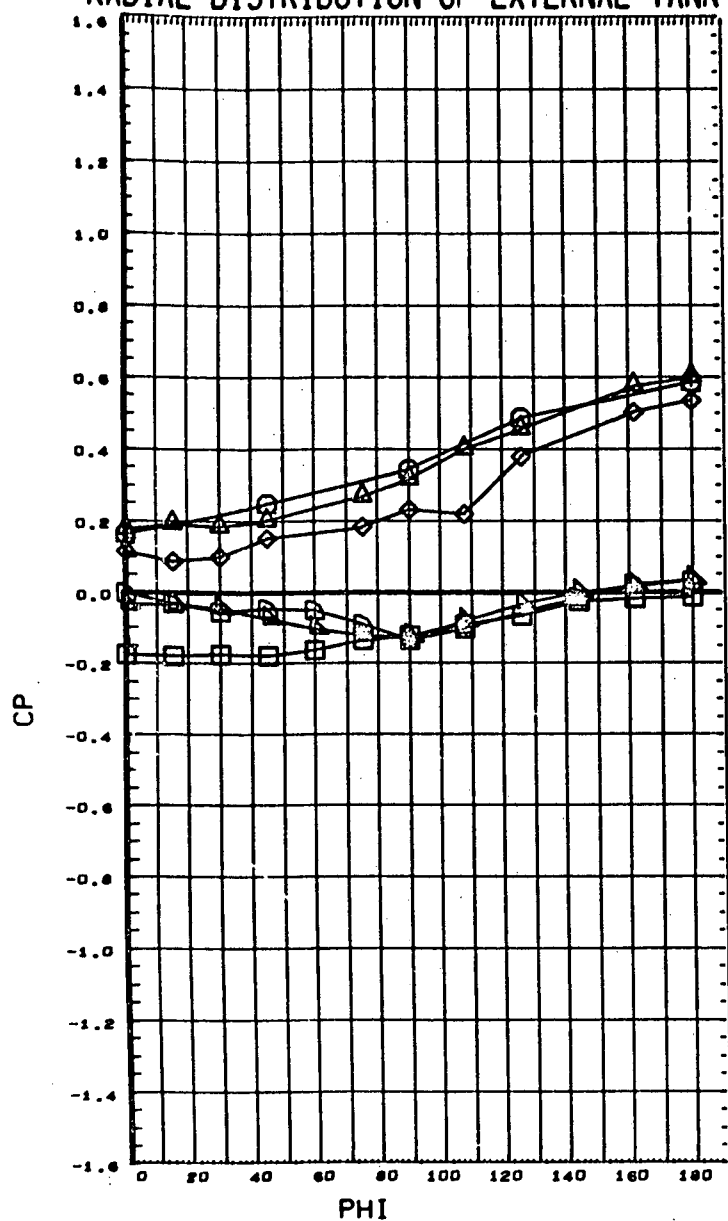
BETA
PARAMETRIC VALUES
0.000

MSFC 543-EXTERNAL TANK ALONE. T1

(R70000)

PAGE 626

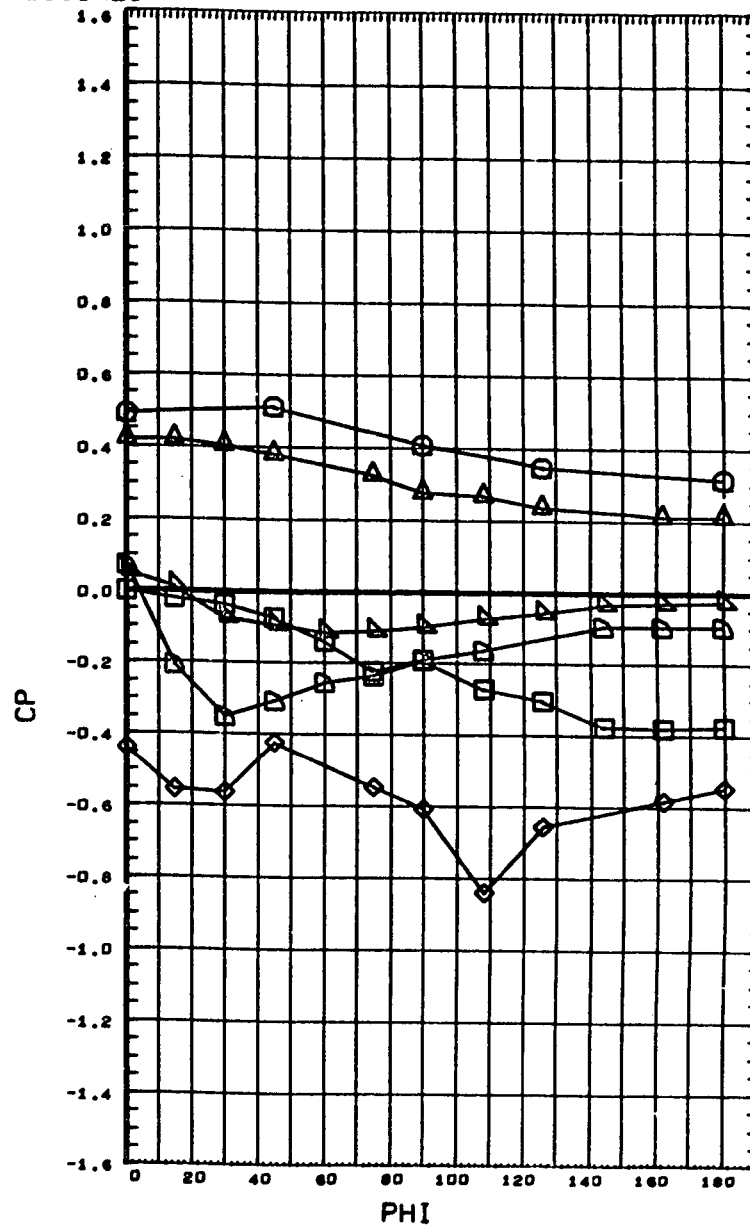
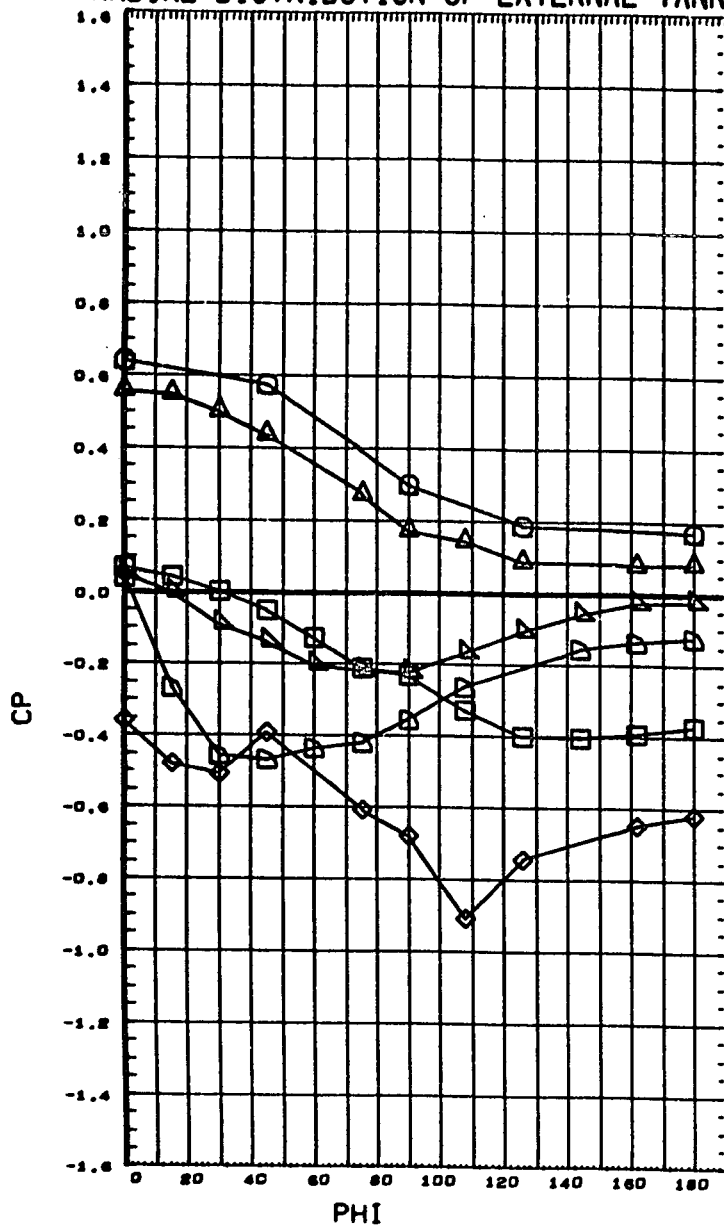
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.960
△	0.361		
◇	0.790		
□	1.066		
▽	2.162		
◇	3.148	REFERENCE FILE	

BETA PARAMETRIC VALUES
0.000

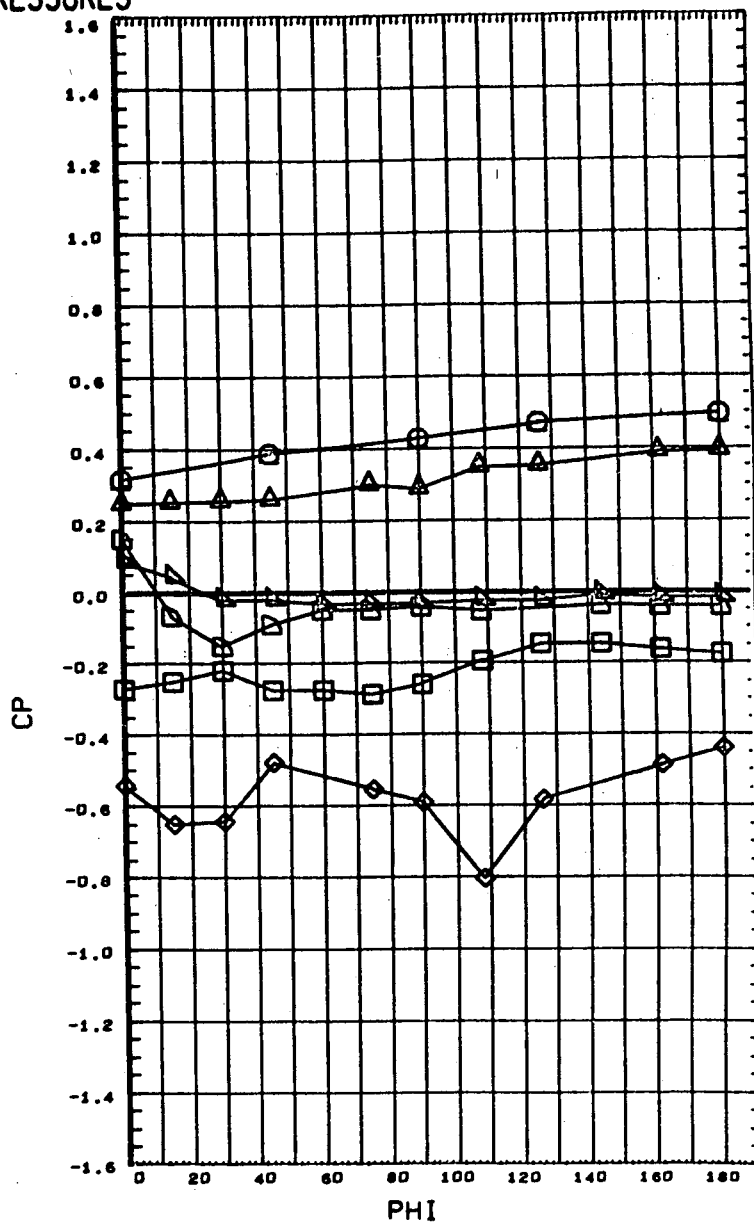
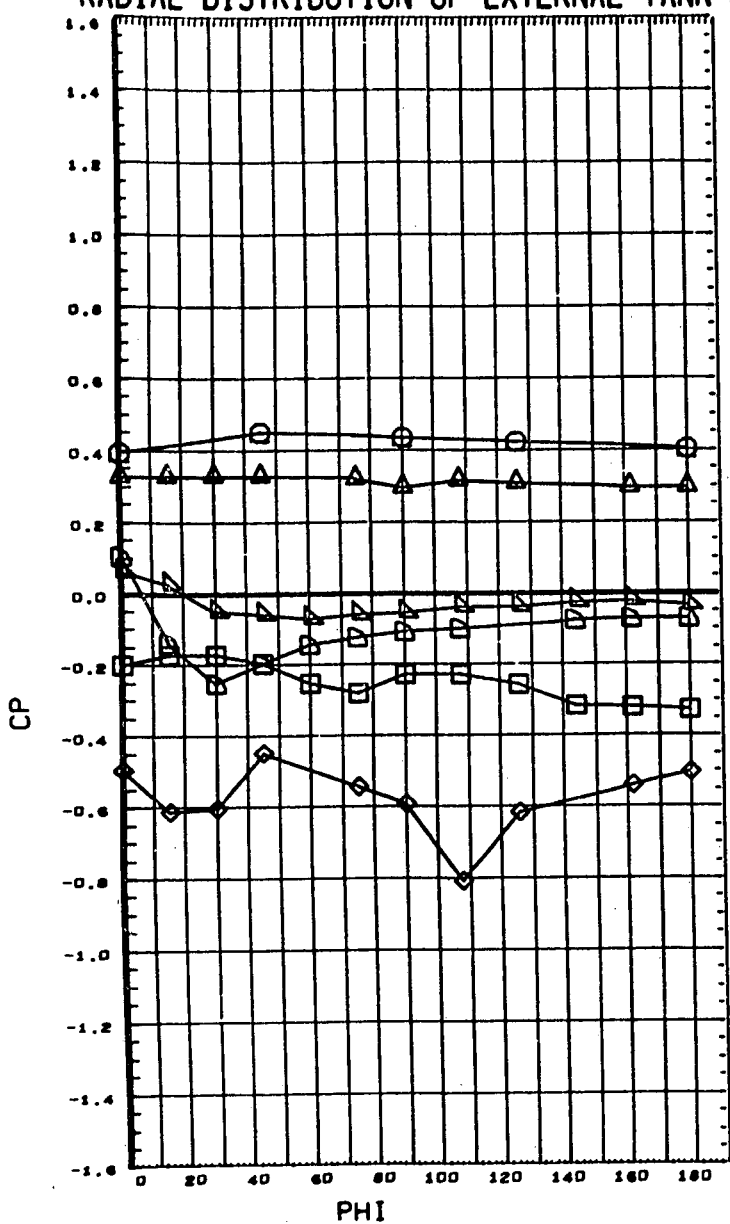
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	0.000
△	0.361	- 4.000	
□	0.790		
◇	1.068		
▽	2.162		
	3.148	REFERENCE FILE	

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	0.800
△	0.361	4.000	
□	0.790		
◇	1.066		
▽	2.162		
	3.146		

REFERENCE FILE

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

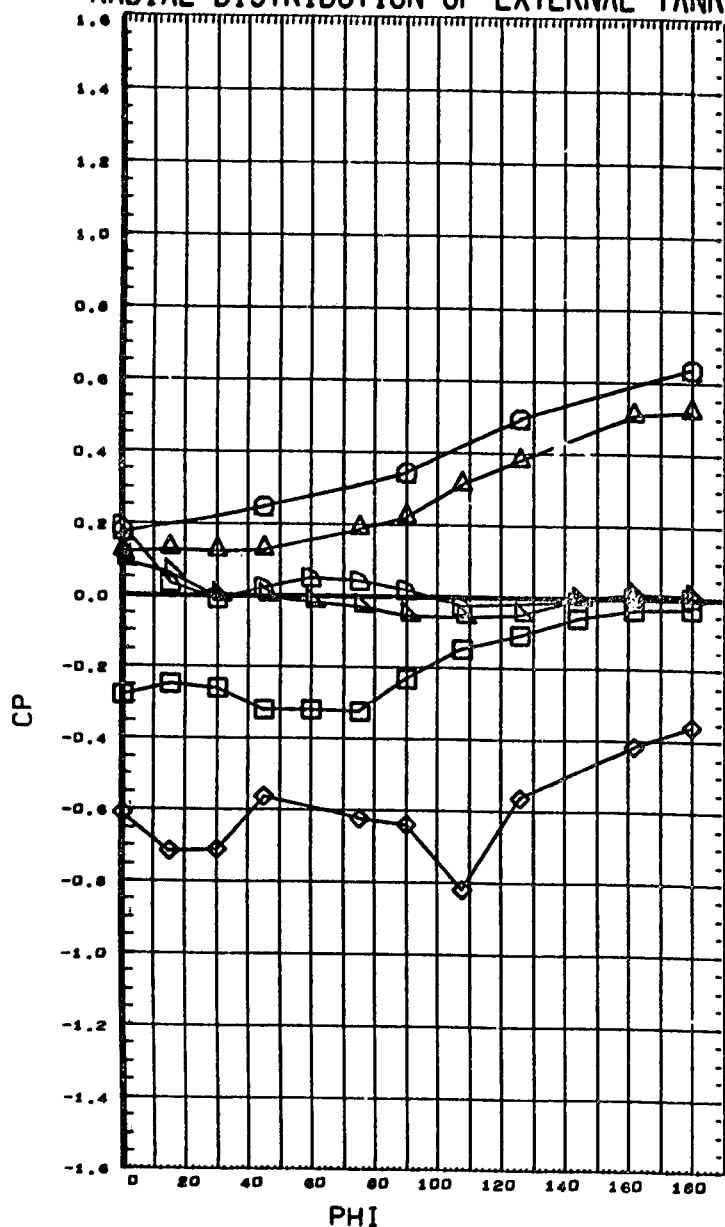
MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(R70600)

PAGE 629

6

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

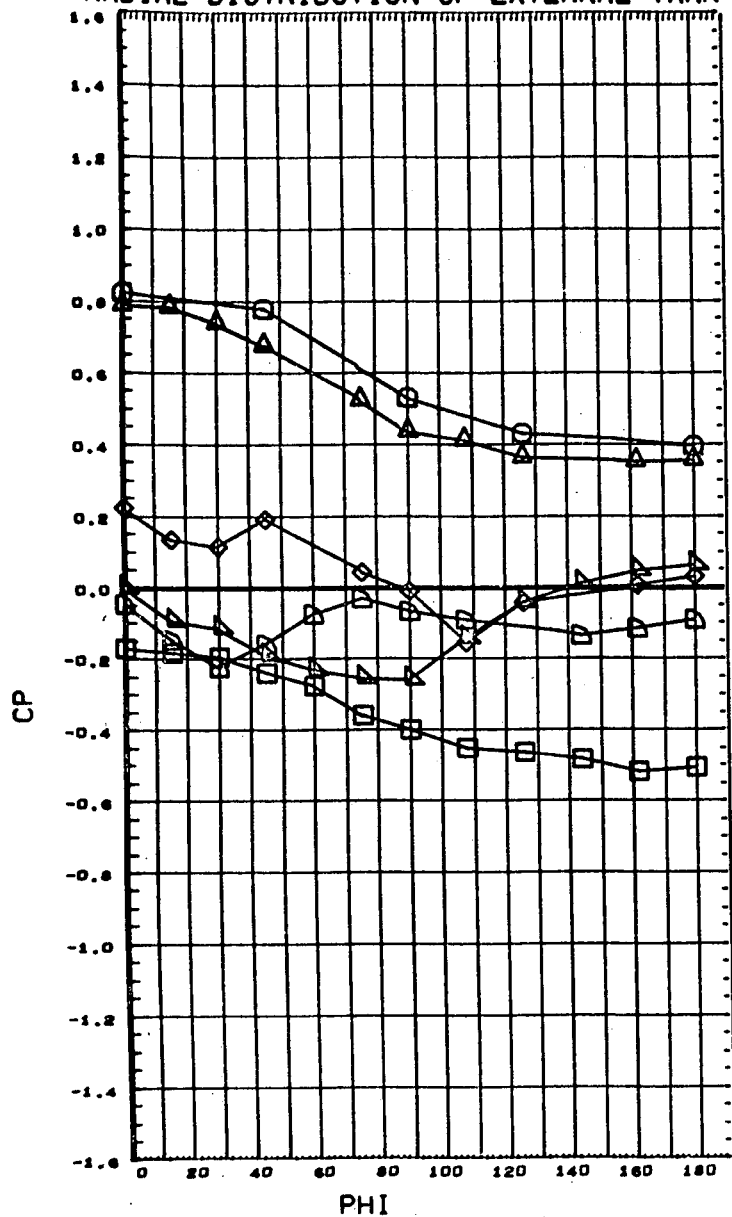


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	0.800
△	0.361		
◇	0.790		
□	1.068		
▽	2.162		
+	3.148		

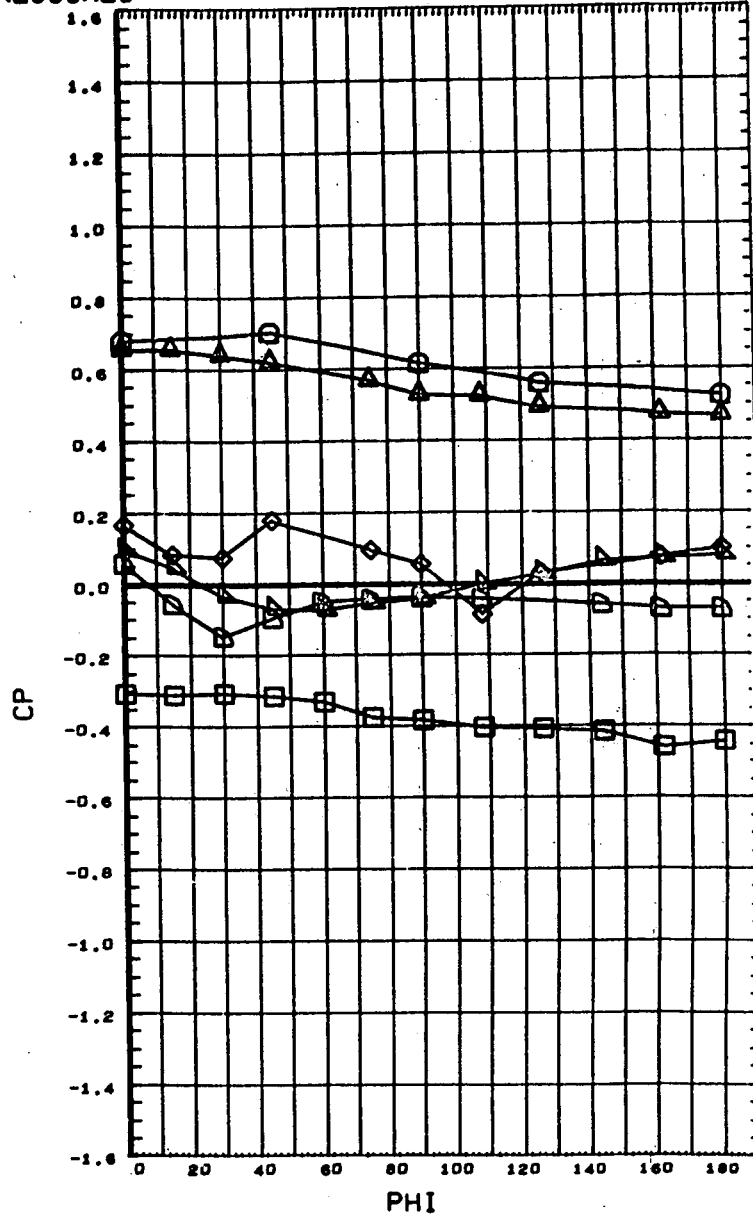
REFERENCE FILE

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

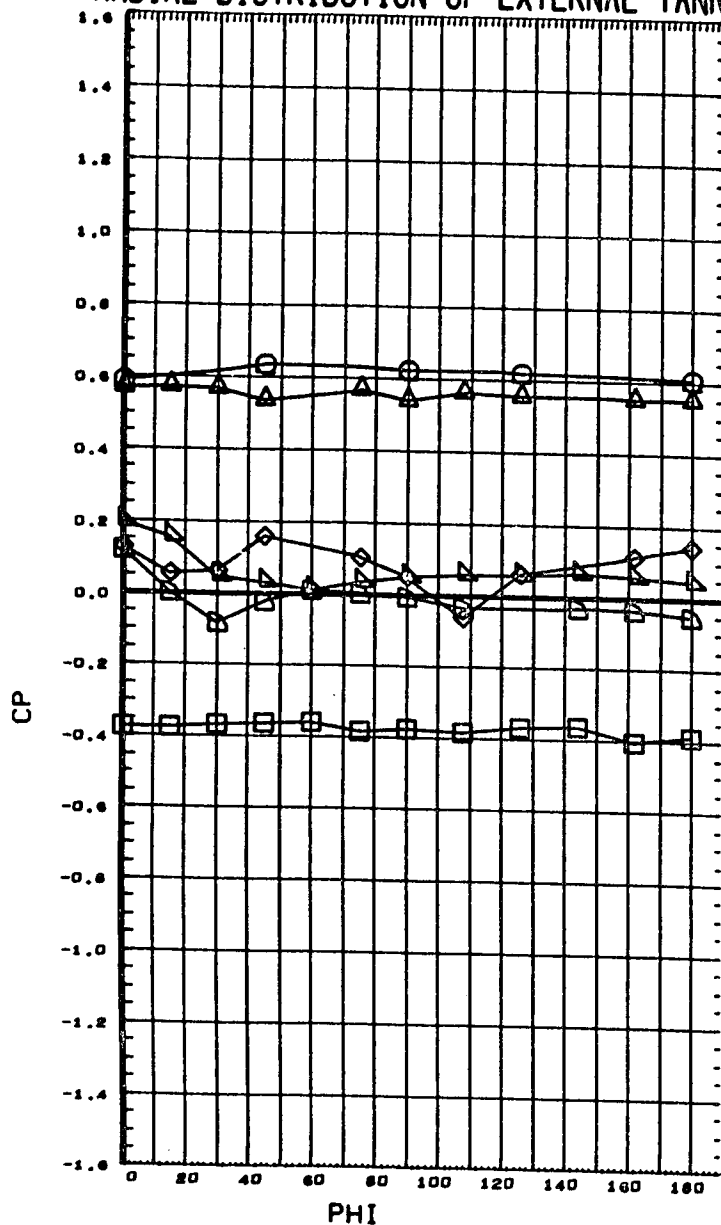


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	1.200
△	0.361	- 4.000	
◇	0.790		
□	1.068		
▽	2.162		
◇	3.148	REFERENCE FILE	

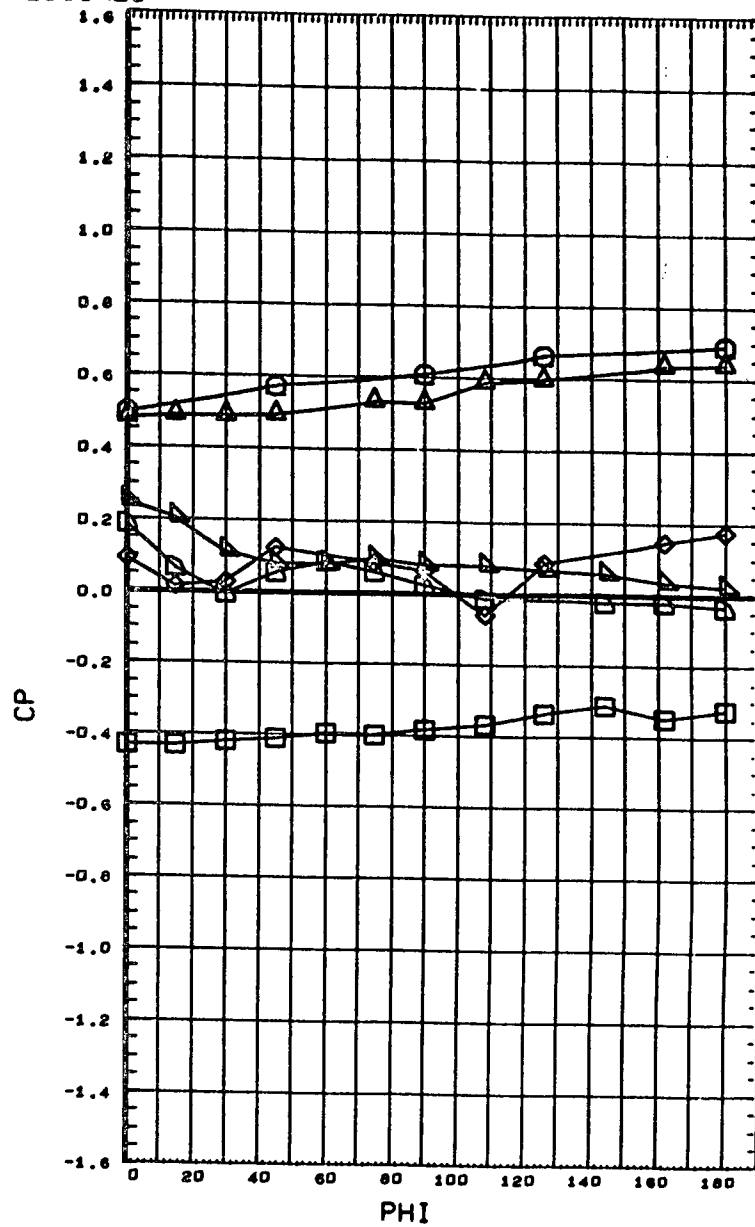


PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

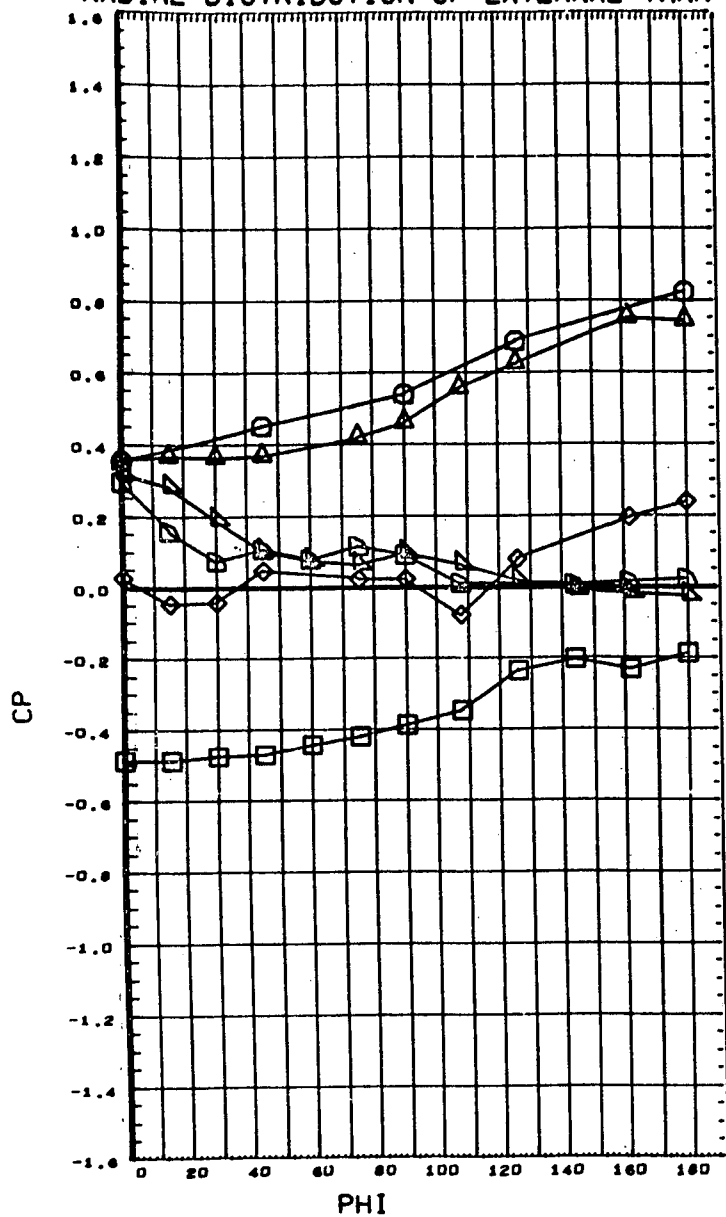


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.066		
□	2.162		
□	3.146		
REFERENCE FILE			



PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

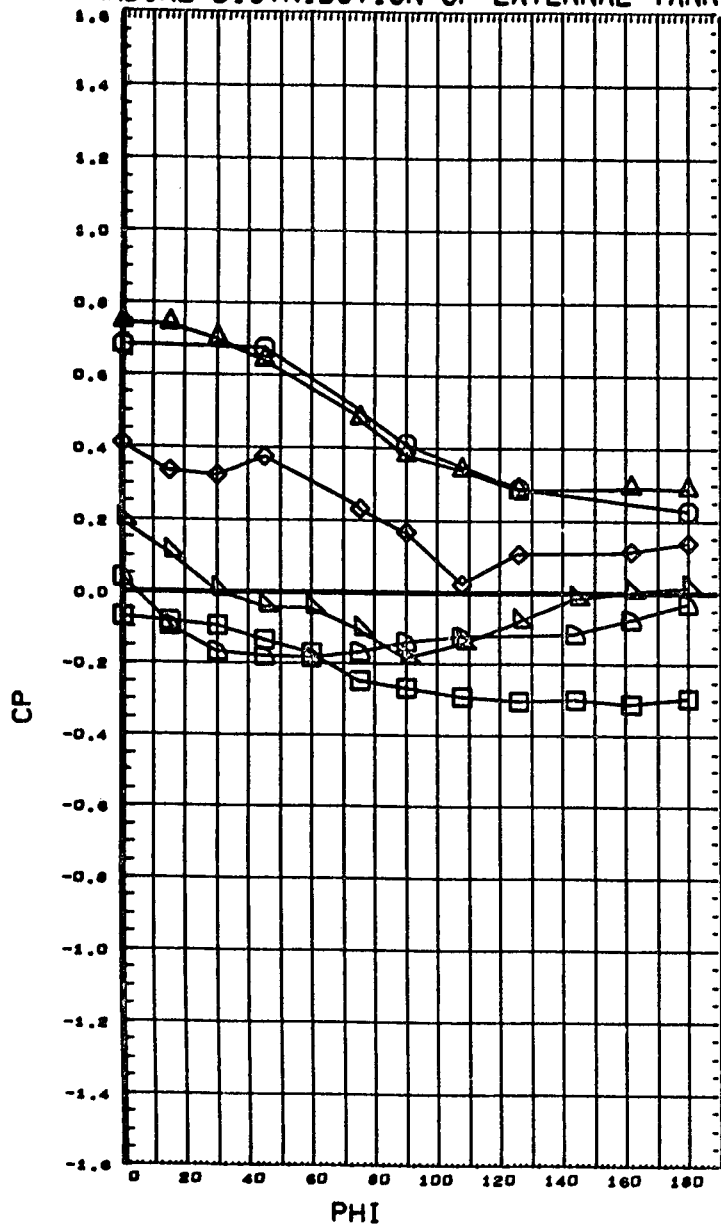
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



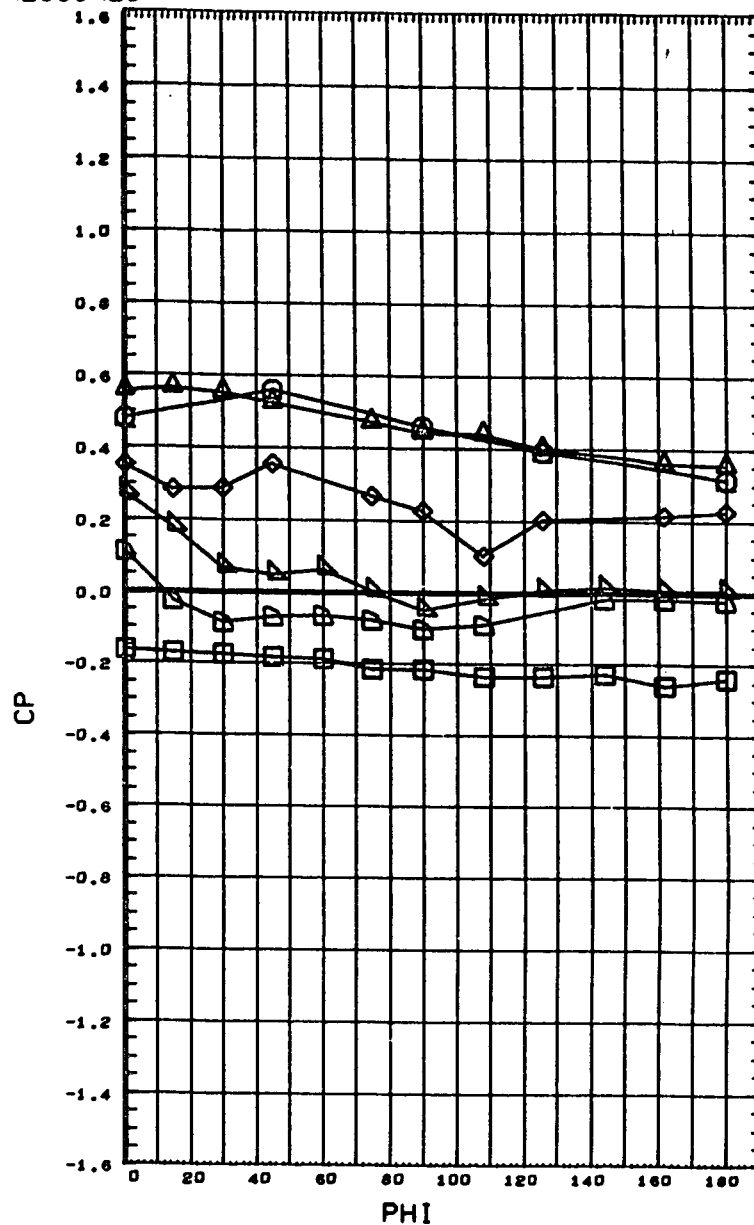
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.200
△	0.361		
◇	0.790		
□	1.068		
◻	2.162		
◻	3.146	REFERENCE FILE	

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

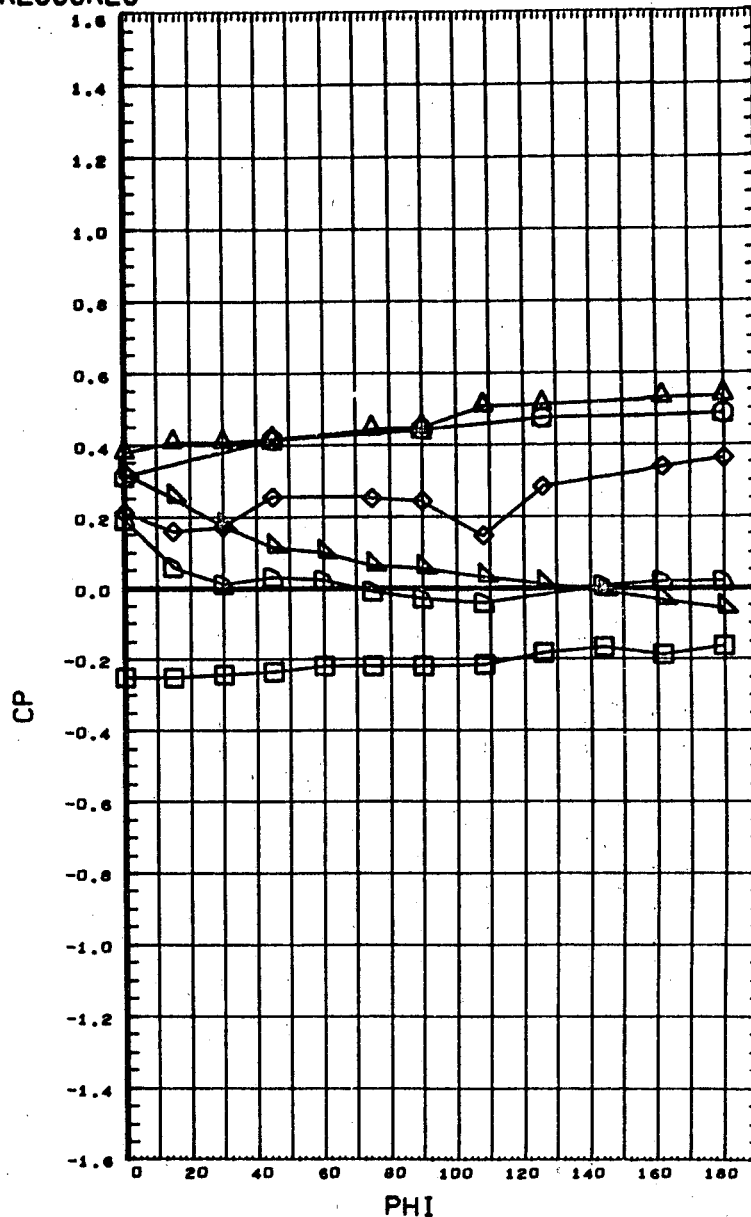
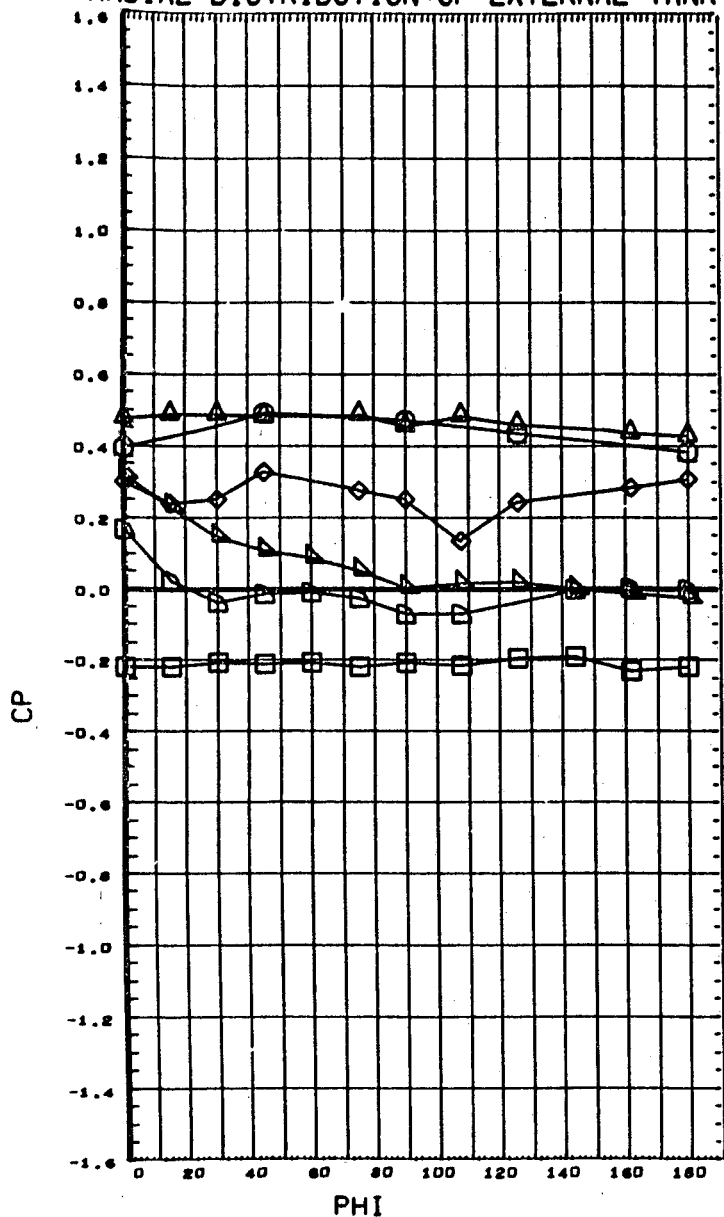


SYMBOL	X/LREF	ALPHA	MACH
△	0.164	- 10.000	1.460
○	0.361	- 4.000	
◇	0.700		
◻	1.068		
▽	2.162		
	3.148	REFERENCE FILE	



PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

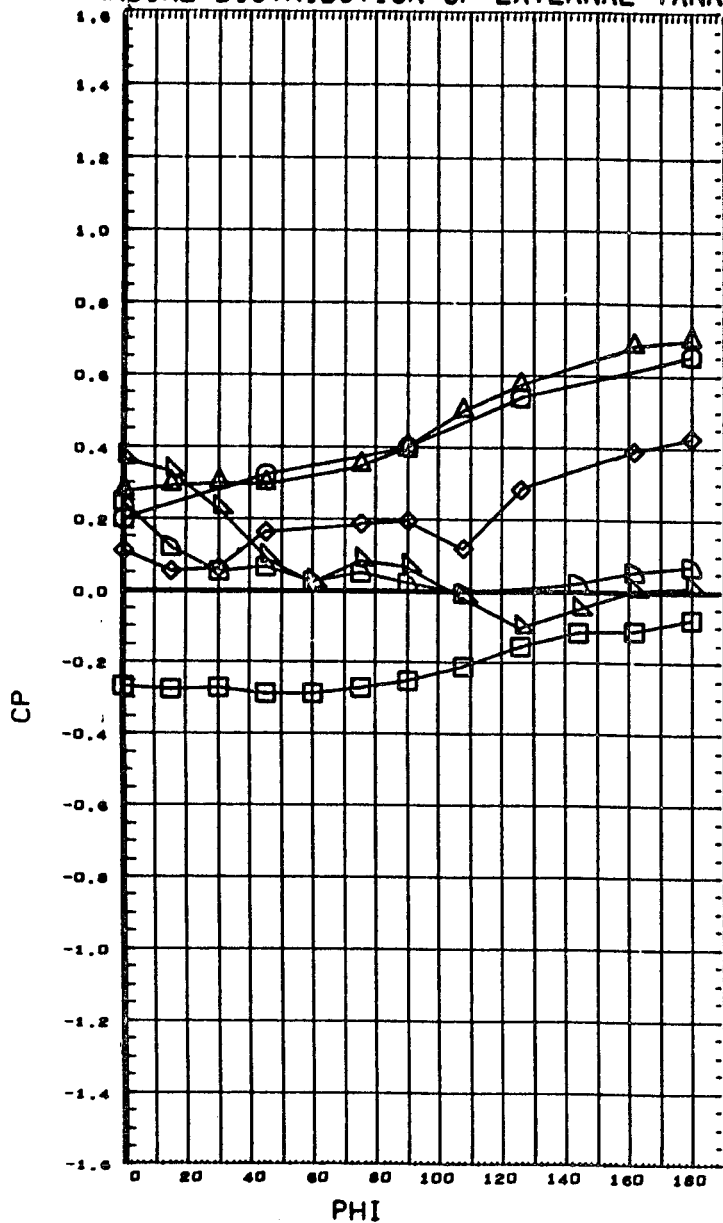
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
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◇	0.361	4.000	
□	0.790		
○	1.060		
▽	2.142		
×	3.148		
	REFERENCE FILE		

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

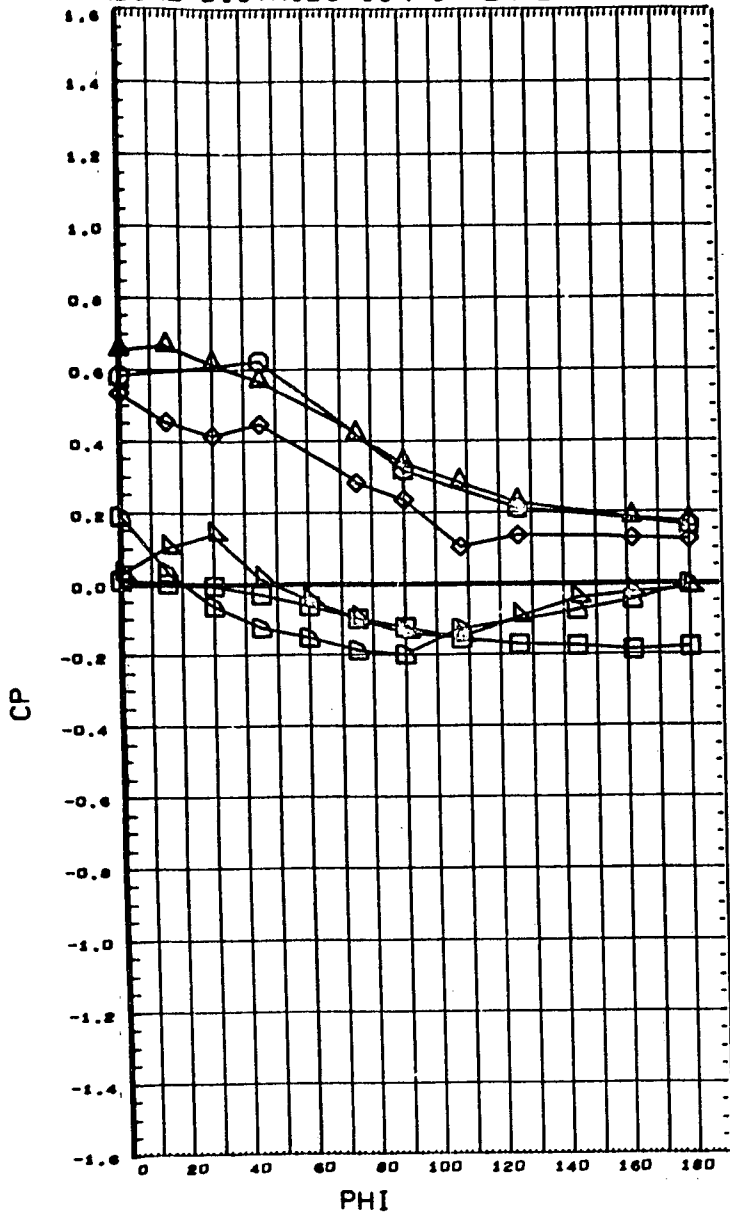
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



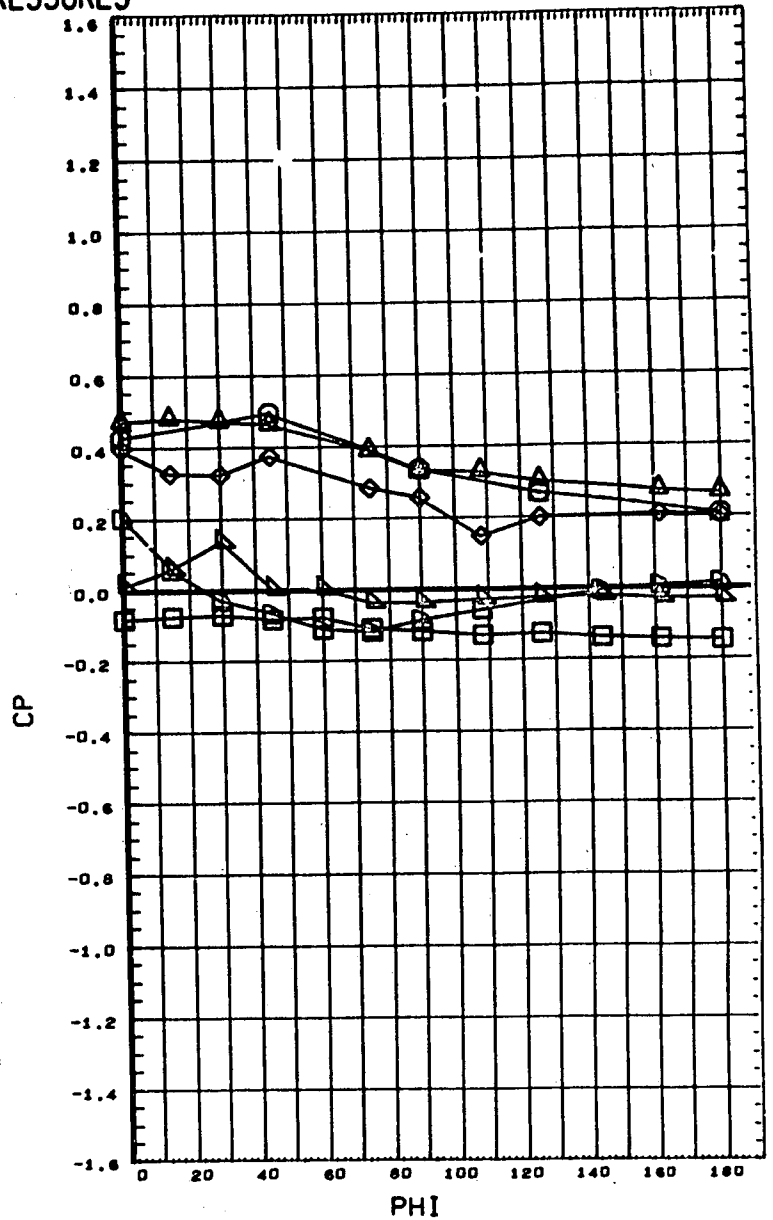
SYMBOL	X/LREF	ALPHA	MACH
△	0.164	10.000	1.460
◇	0.361		
◇	0.790		
◇	1.066		
◇	2.162		
◇	3.148		
	REFERENCE FILE		

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

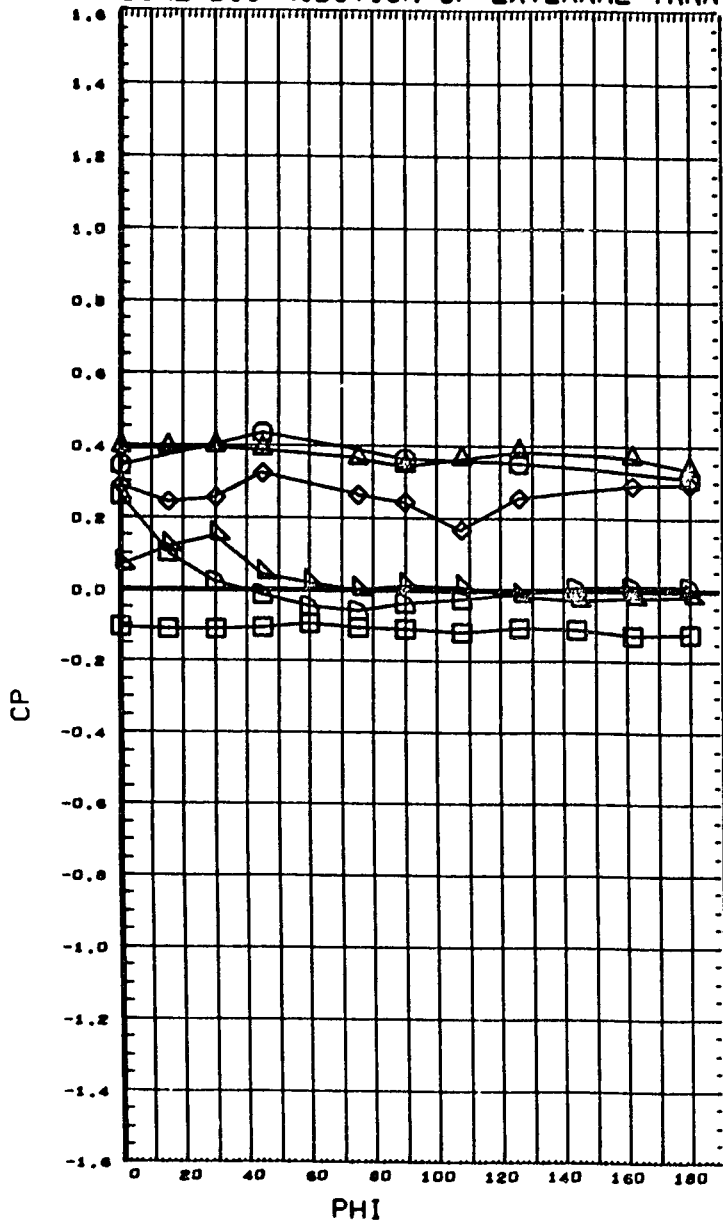


SYMBOL	X/LREF	ALPHA	MACH
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◇	0.361	4.000	
□	0.790		
○	1.066		
▽	2.162		
◇	3.146	REFERENCE FILE	

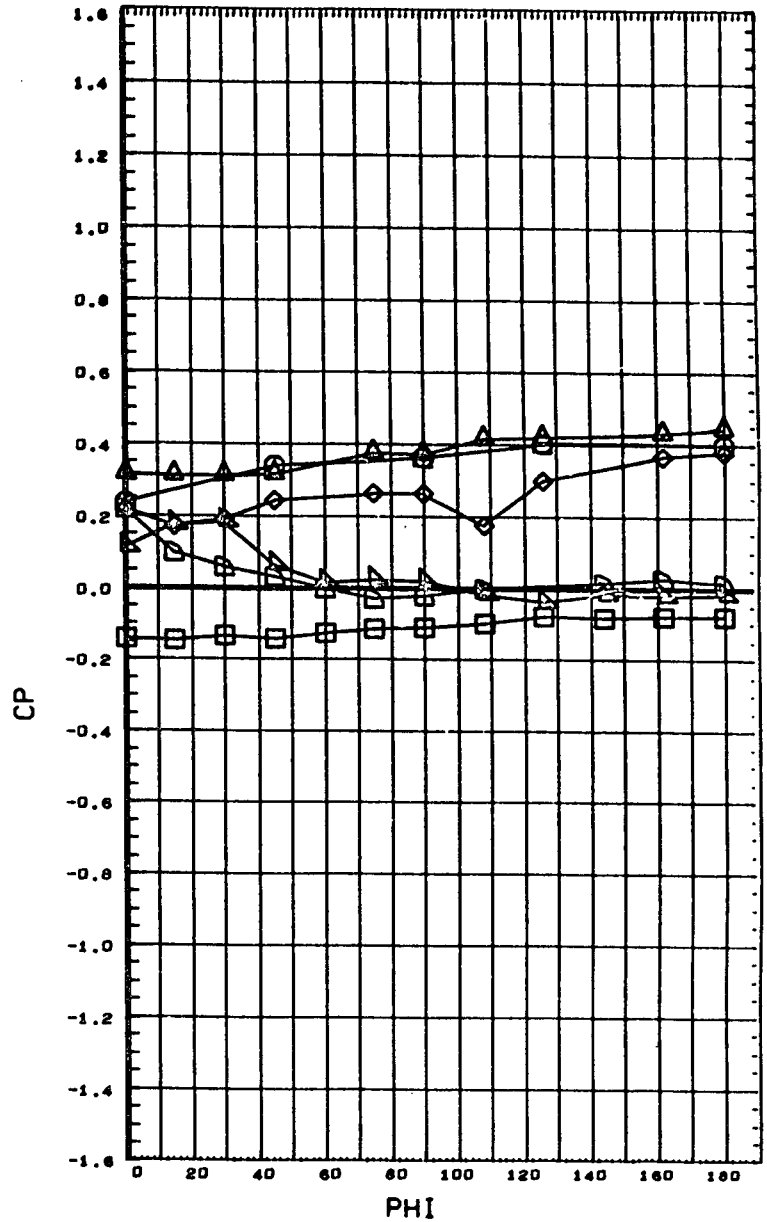


PARAMETRIC VALUES
BETA 0.000 ORBINC 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

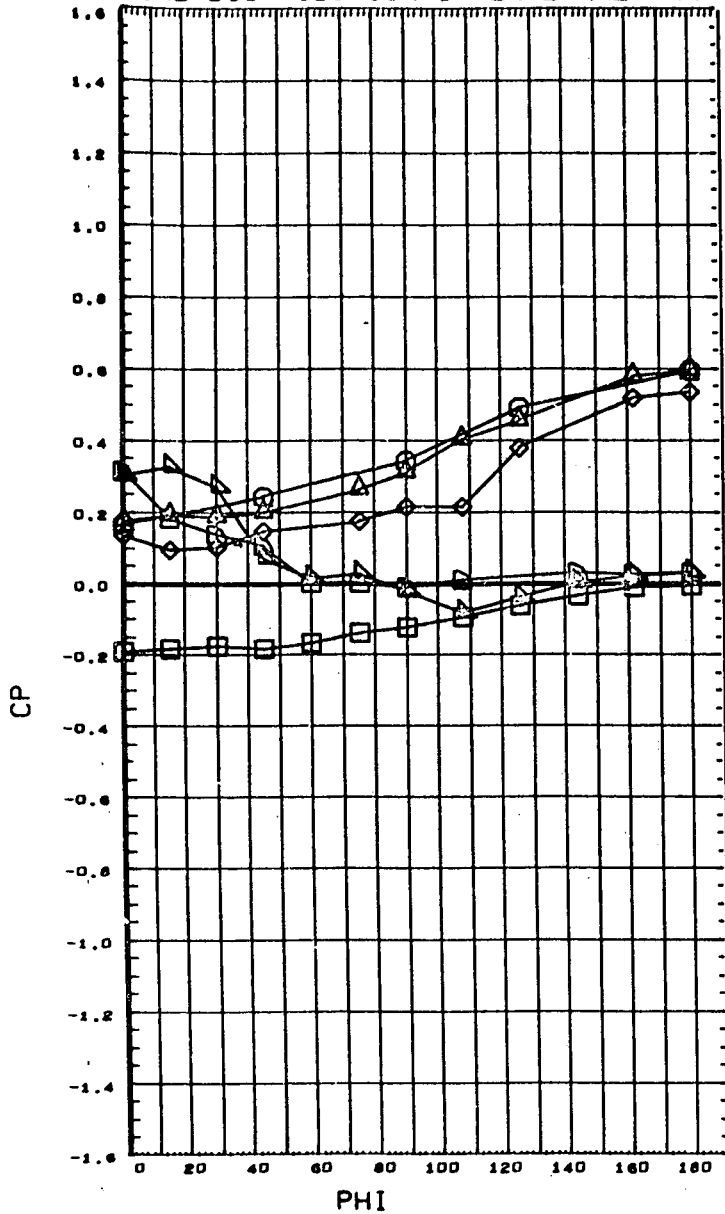


SYMBOL	X/LREF	ALPHA	MACH
△	0.164	0.000	1.960
◇	0.361	4.000	
□	0.790		
○	1.068		
▽	2.162		
	3.148	REFERENCE FILE	



PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

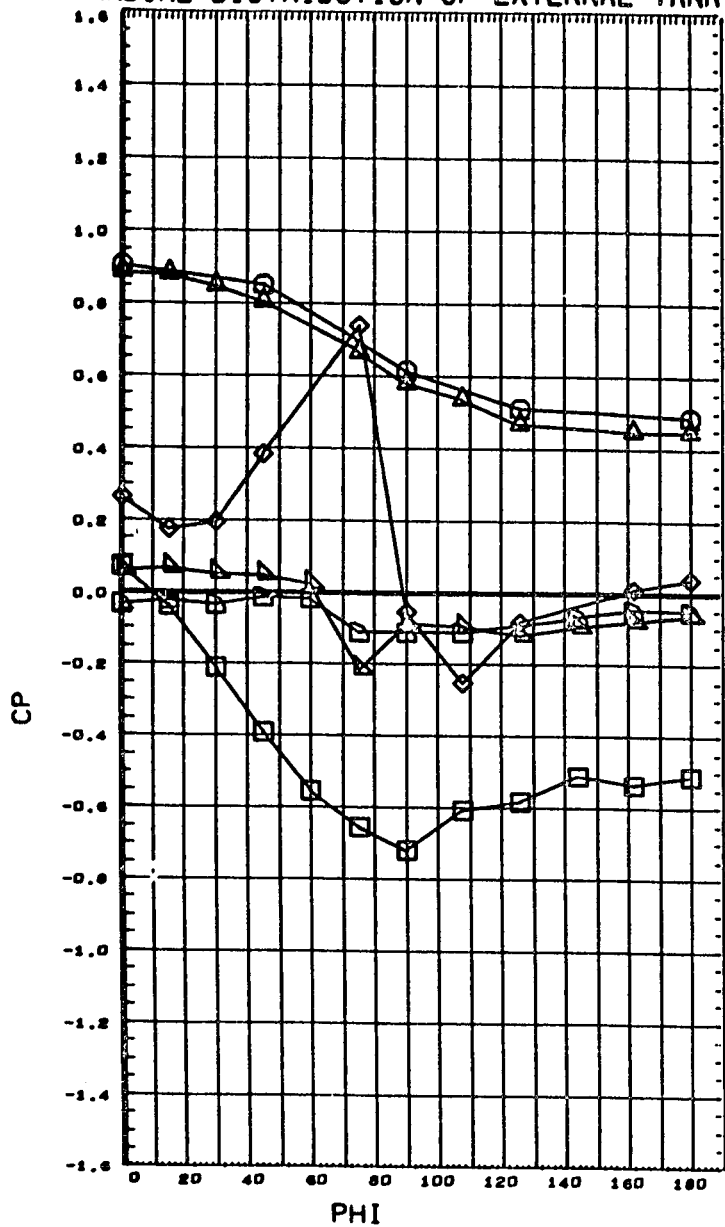
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
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◇	0.361		
○	0.790		
□	1.068		
▽	2.182		
	3.148	REFERENCE FILE	

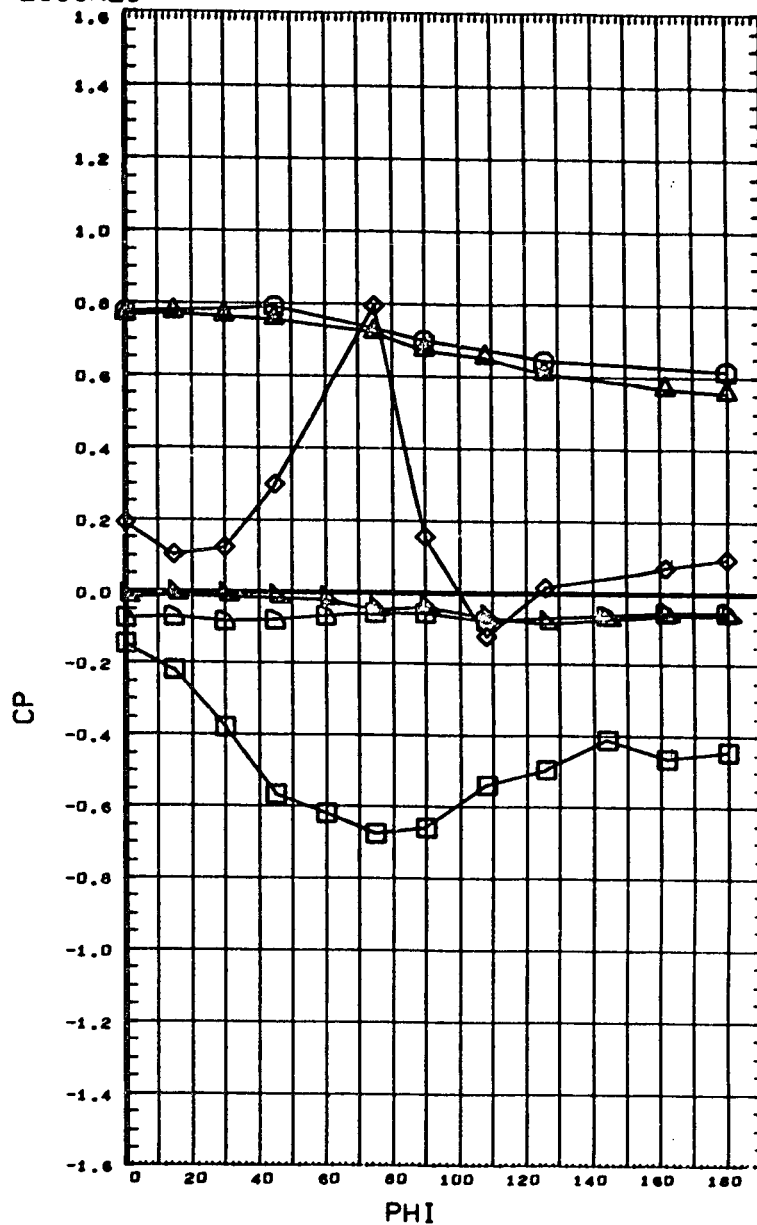
PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



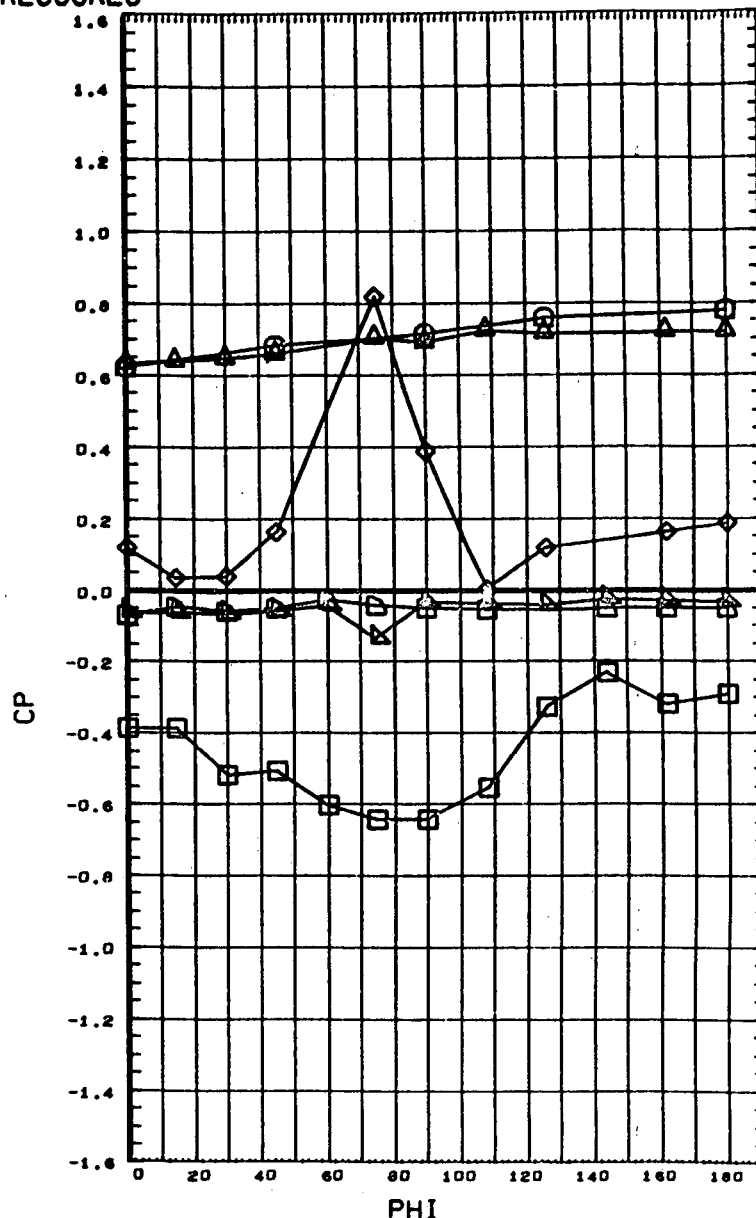
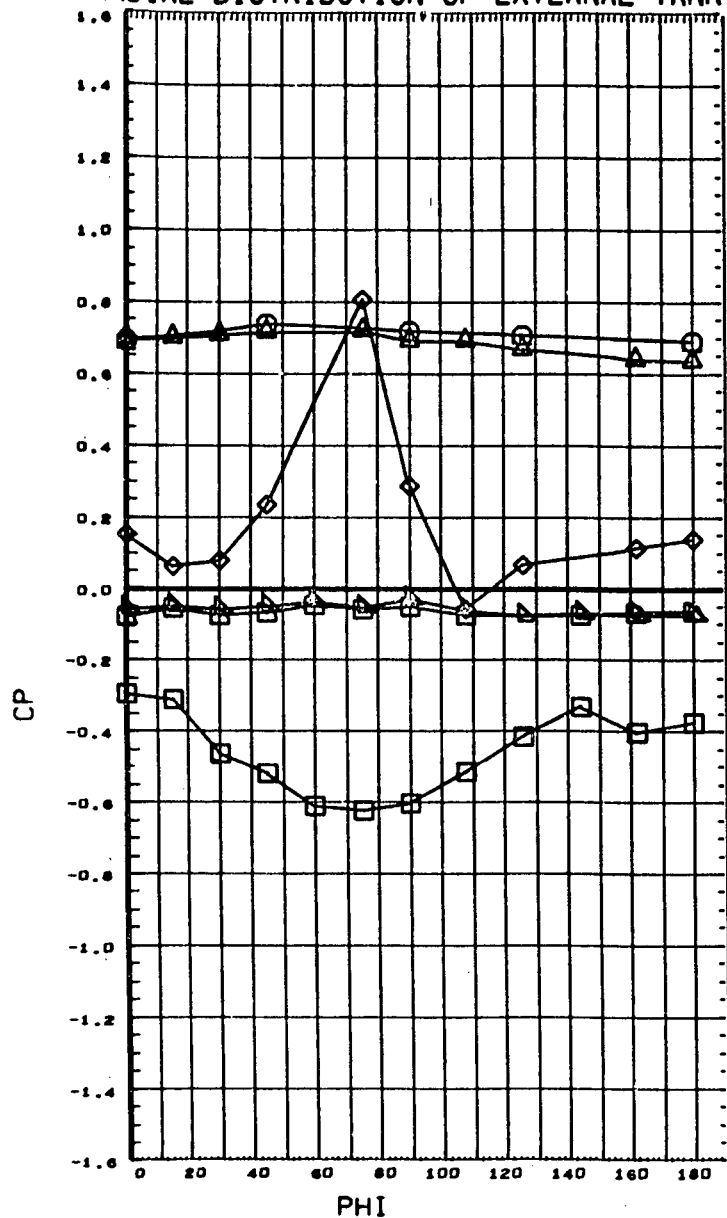
SYMBOL	X/LREF	ALPHA	MACH
○	0.104	10.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.068		
▽	2.162		
◇	3.148		

REFERENCE FILE



PARAMETRIC VALUES
BETA 0.000 SRBGAP 0.025

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



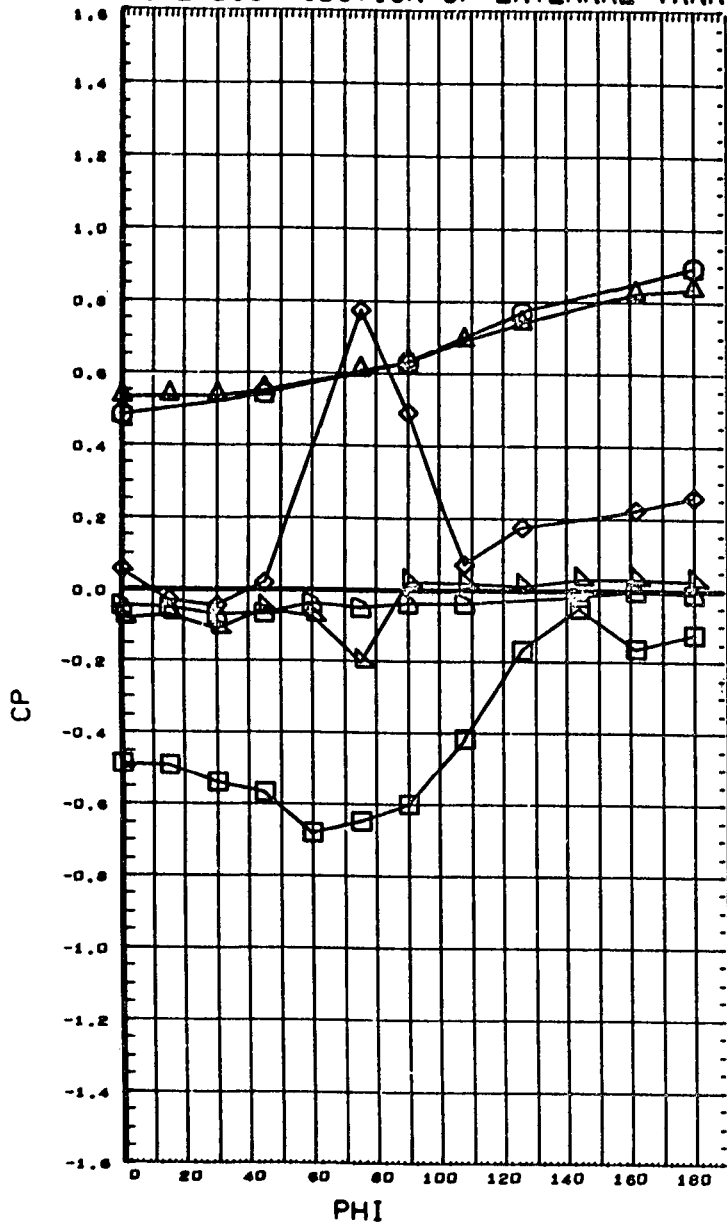
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.068		
▽	2.162		
◇	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	SRBGAP 0.025

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED. T1S1 (R705TK)

PAGE 641

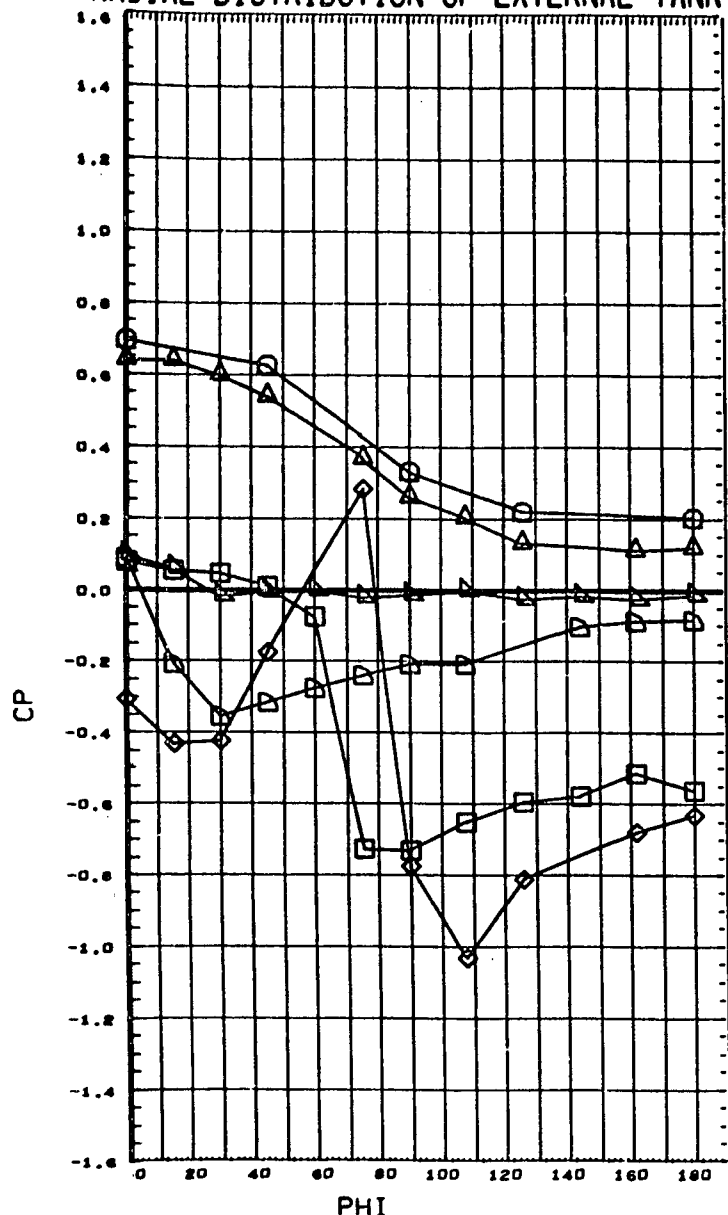
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



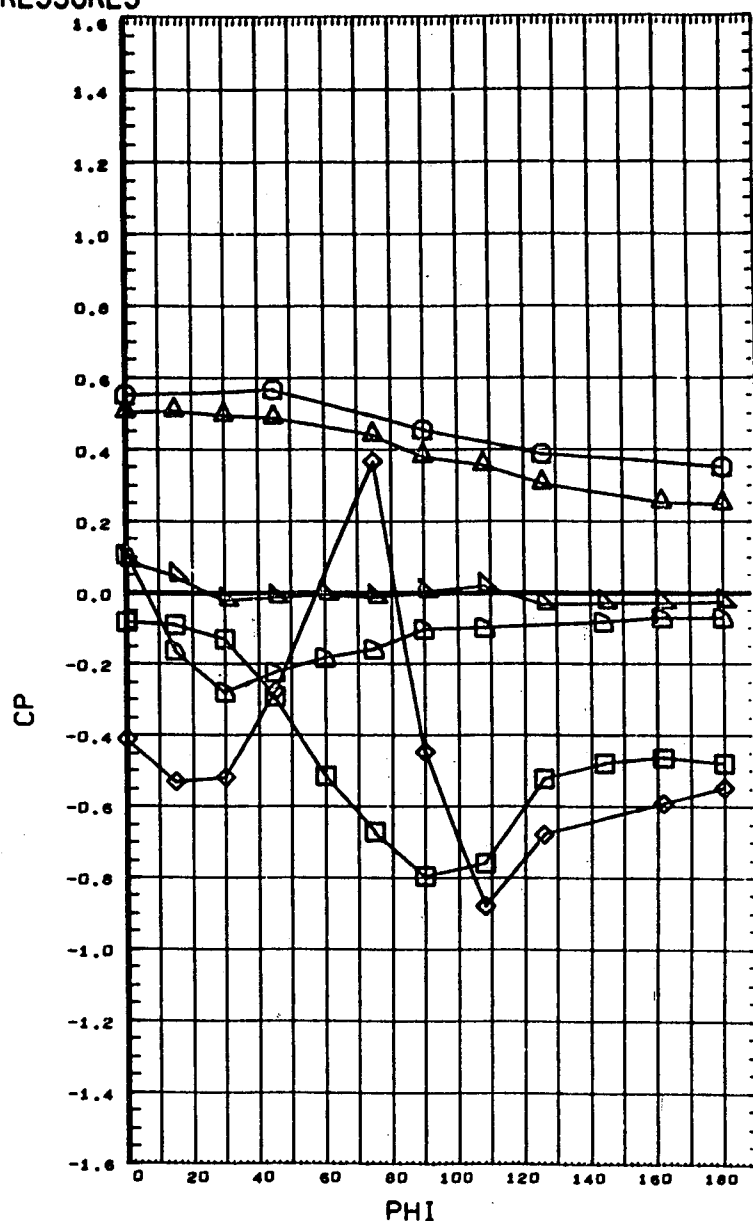
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.200
△	0.361		
◇	0.790		
□	1.066		
▽	2.162		
—	3.146	REFERENCE FILE	

PARAMETRIC VALUES
 BETA 0.000 SRBGAP 0.025

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

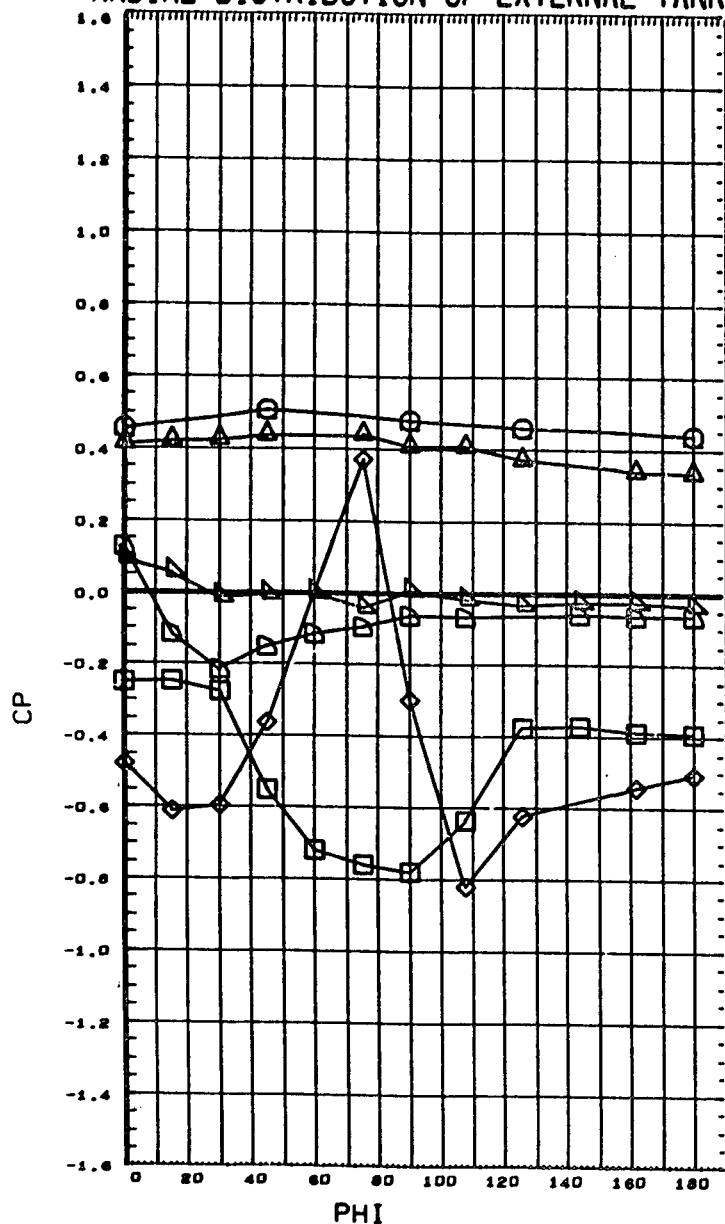


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	0.800
△	0.361	4.000	
□	0.790		
◇	1.066		
×	2.162		
	3.148	REFERENCE FILE	



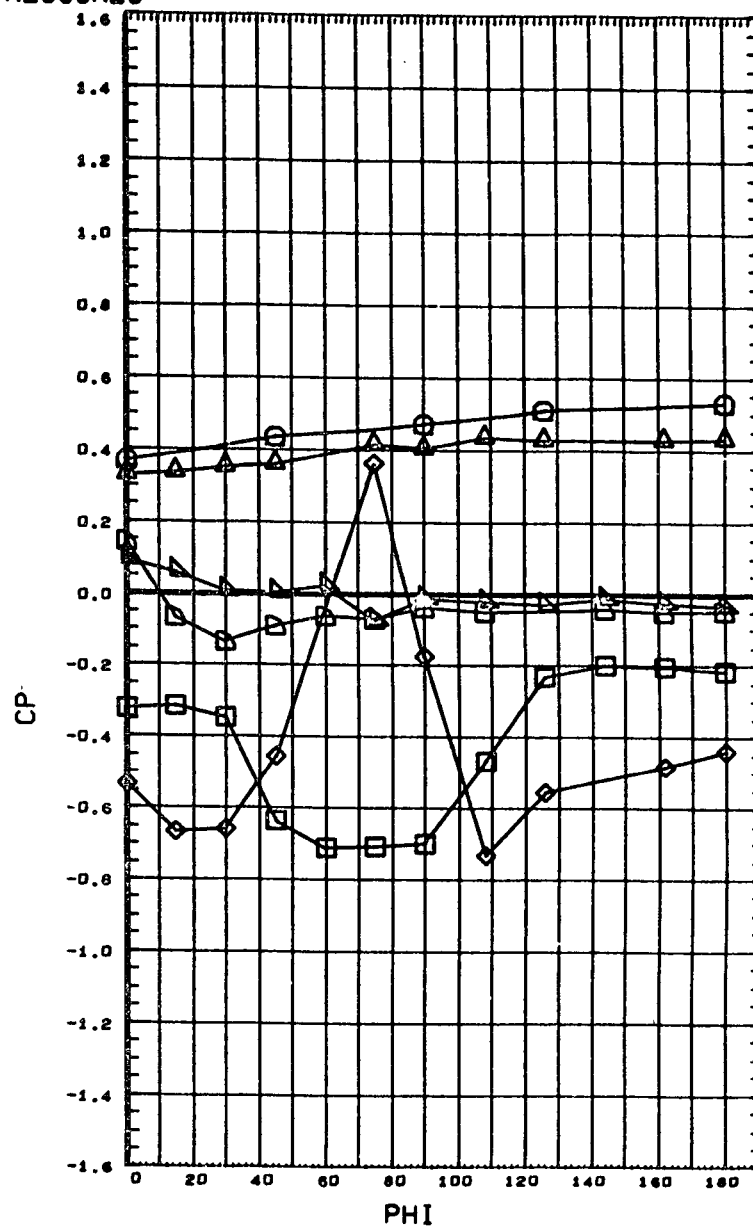
PARAMETRIC VALUES	
BETA	0.000 ORBINC - 1.500
SRBGAP	0.025

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



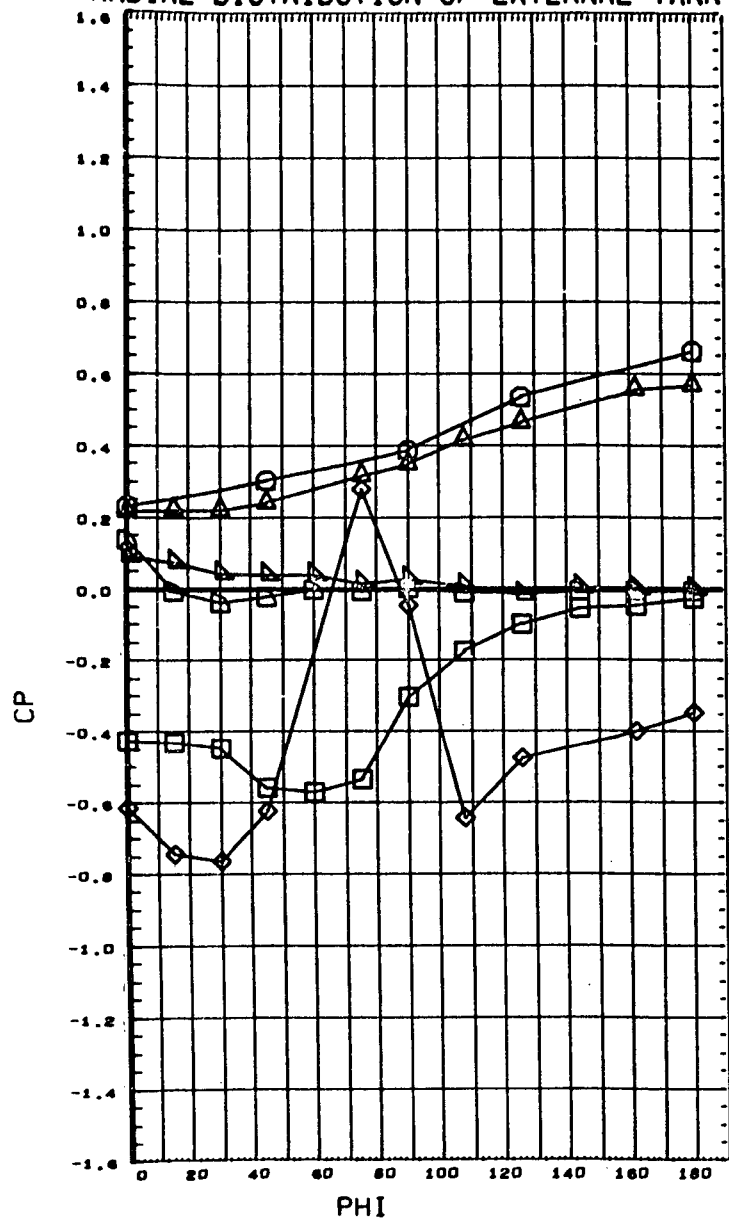
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	0.800
△	0.361	4.000	
◇	0.790		
□	1.066		
▽	2.162		
◇	3.146		

REFERENCE FILE



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

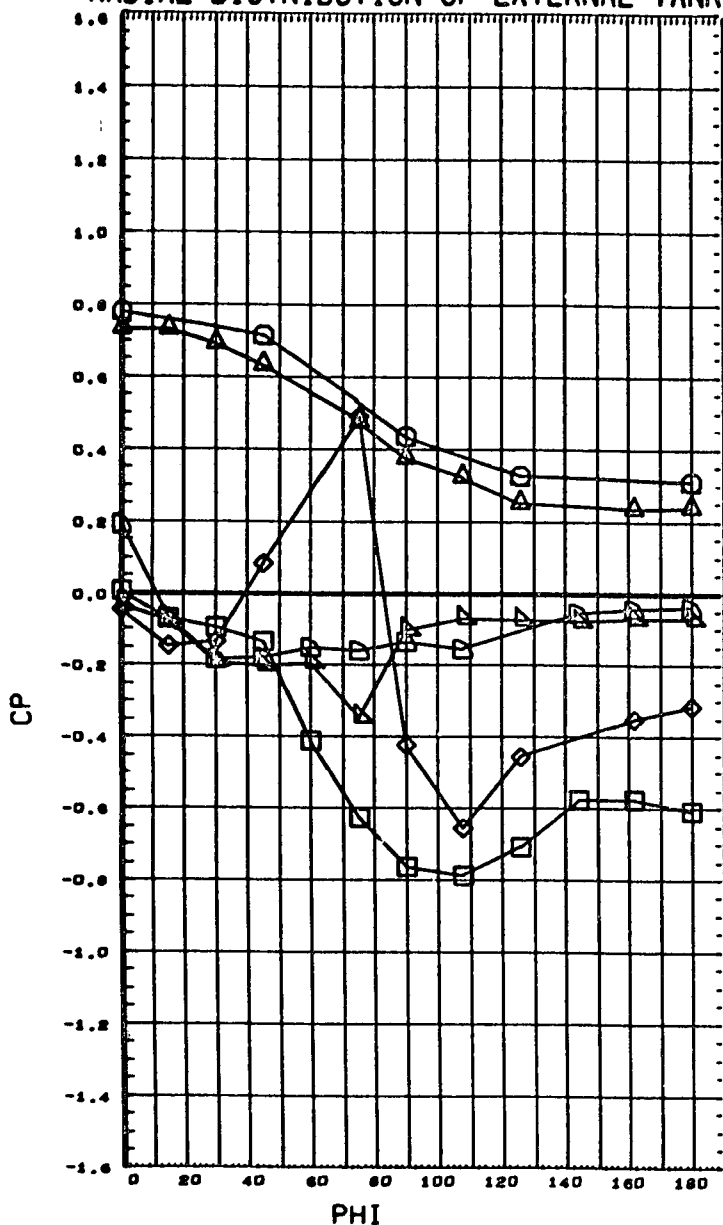


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	0.800
△	0.361		
□	0.790		
◇	1.060		
▽	2.162		
×	3.148		

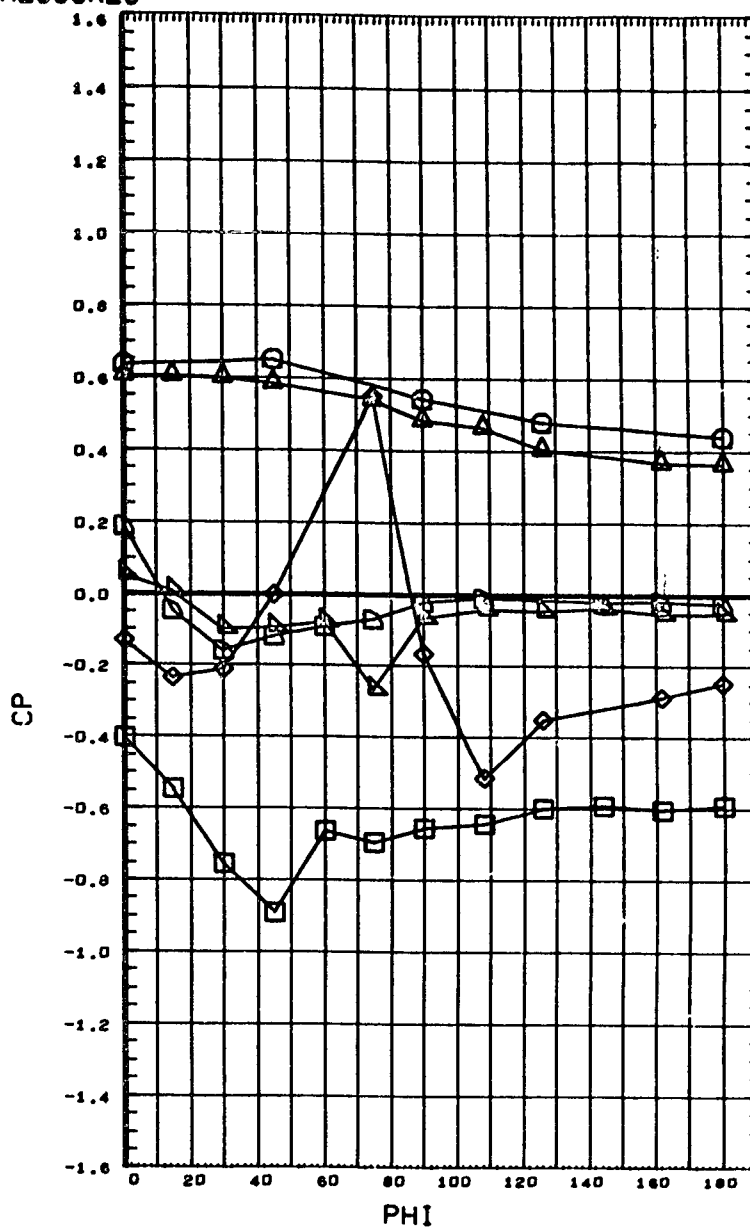
REFERENCE FILE

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

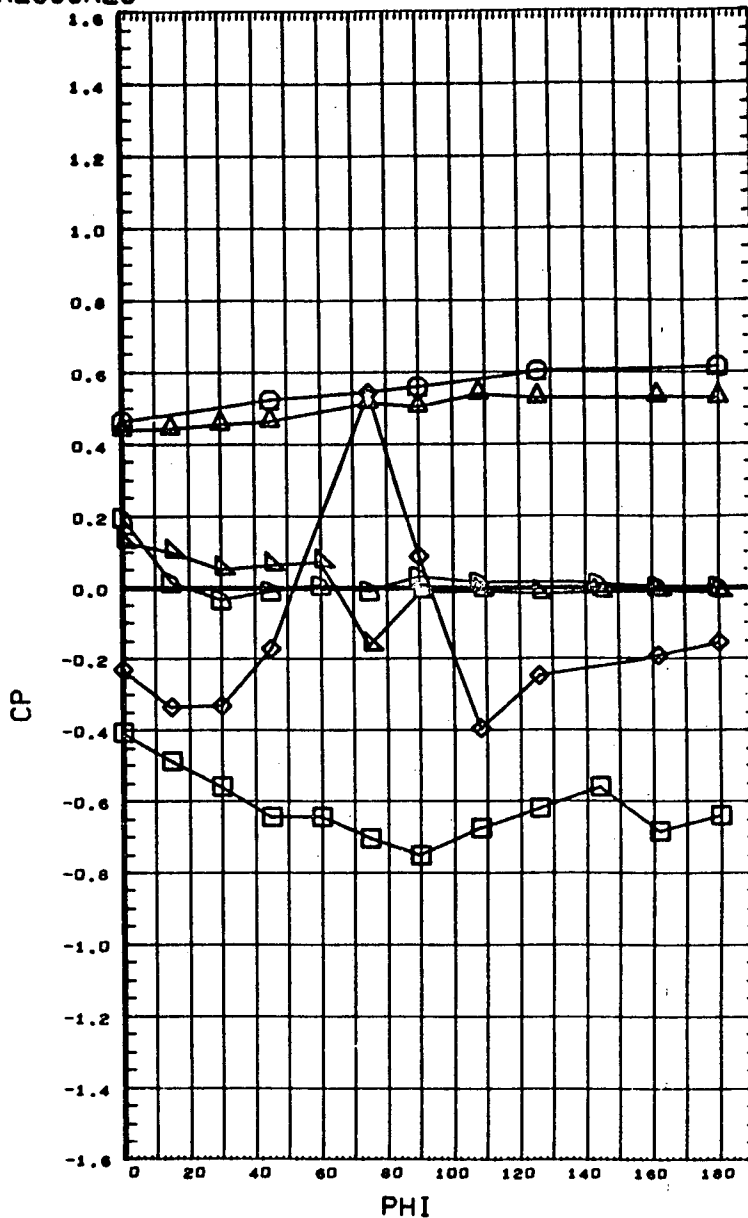
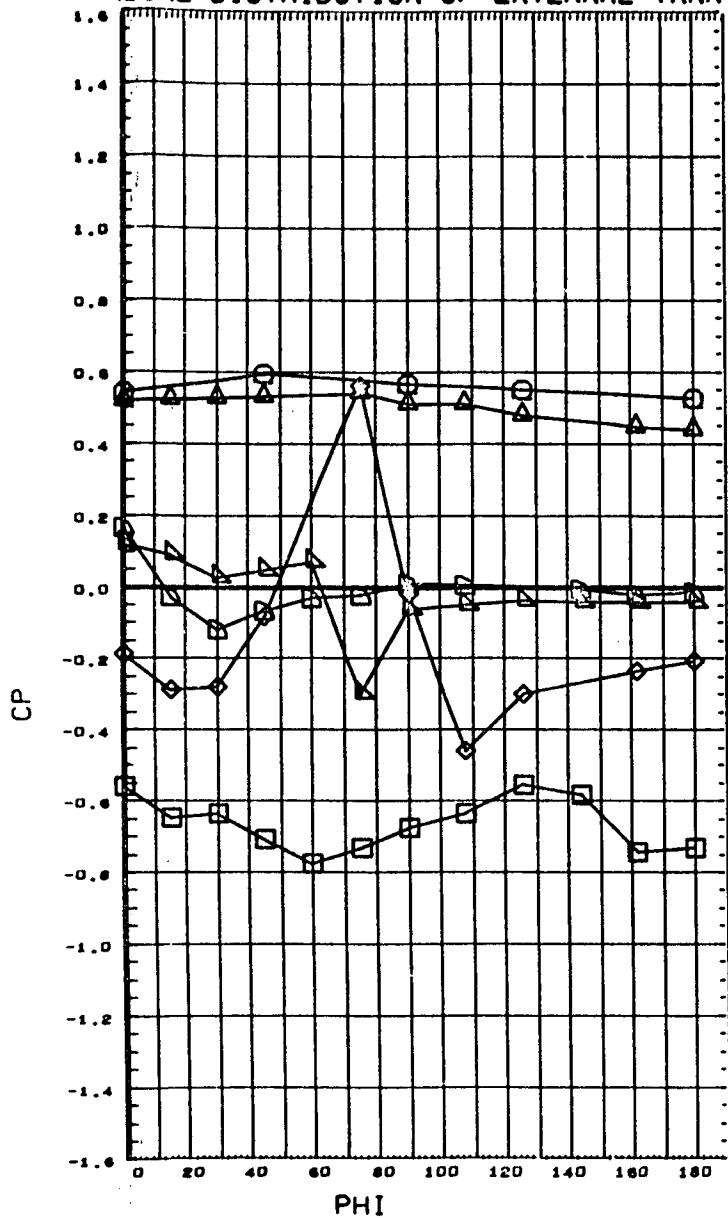


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	0.950
△	0.361	- 4.000	
◇	0.790		
□	1.068		
×	2.162		
	3.148	REFERENCE FILE	



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

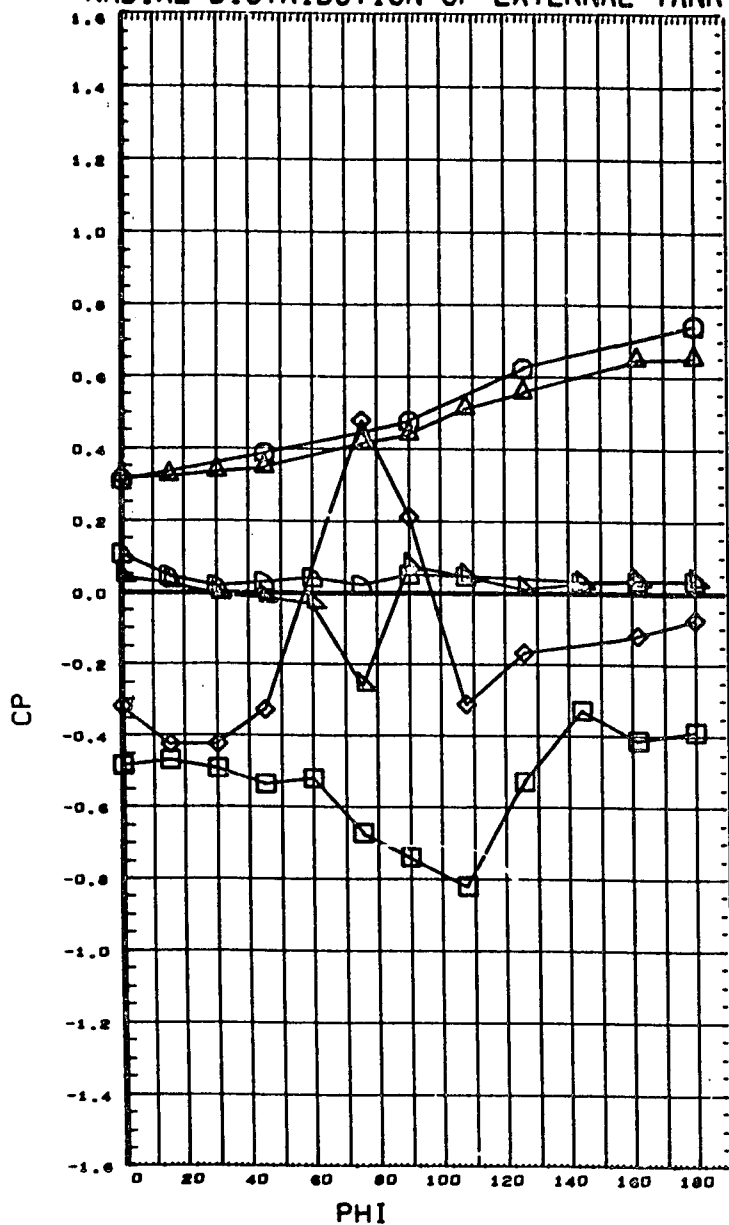
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	0.950
△	0.361	4.000	
◇	0.790		
□	1.068		
×	2.162		
	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

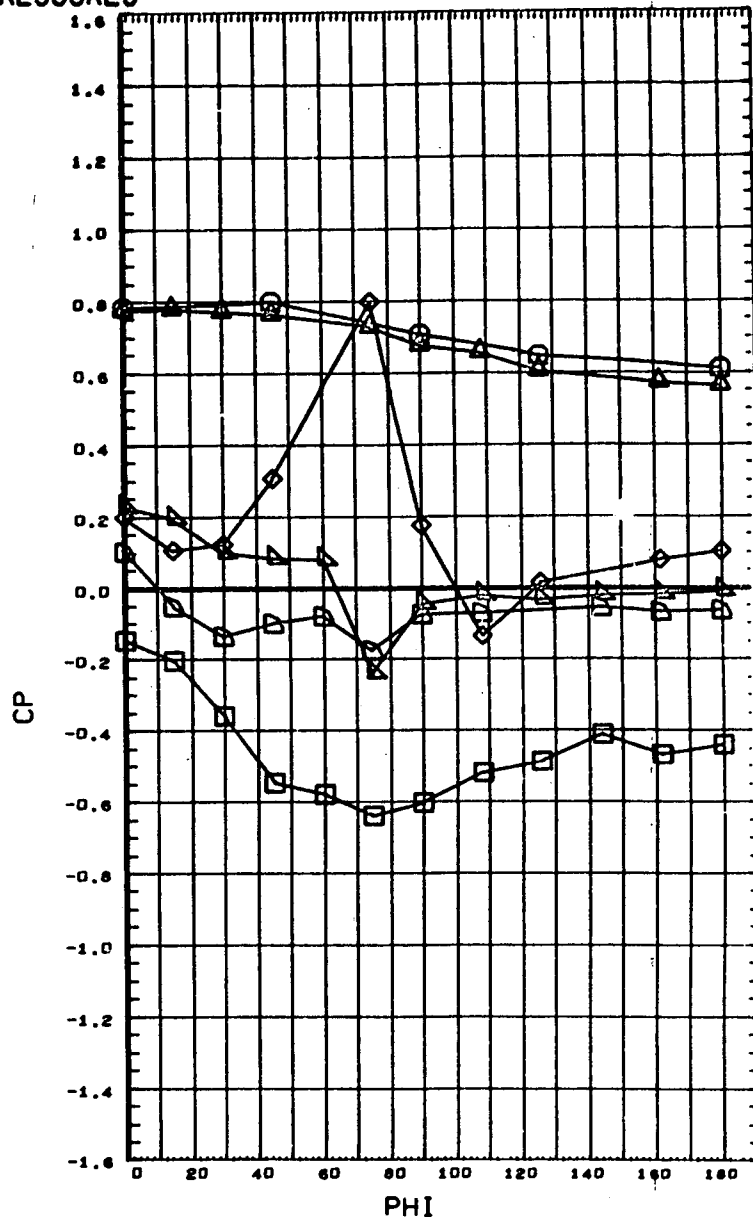
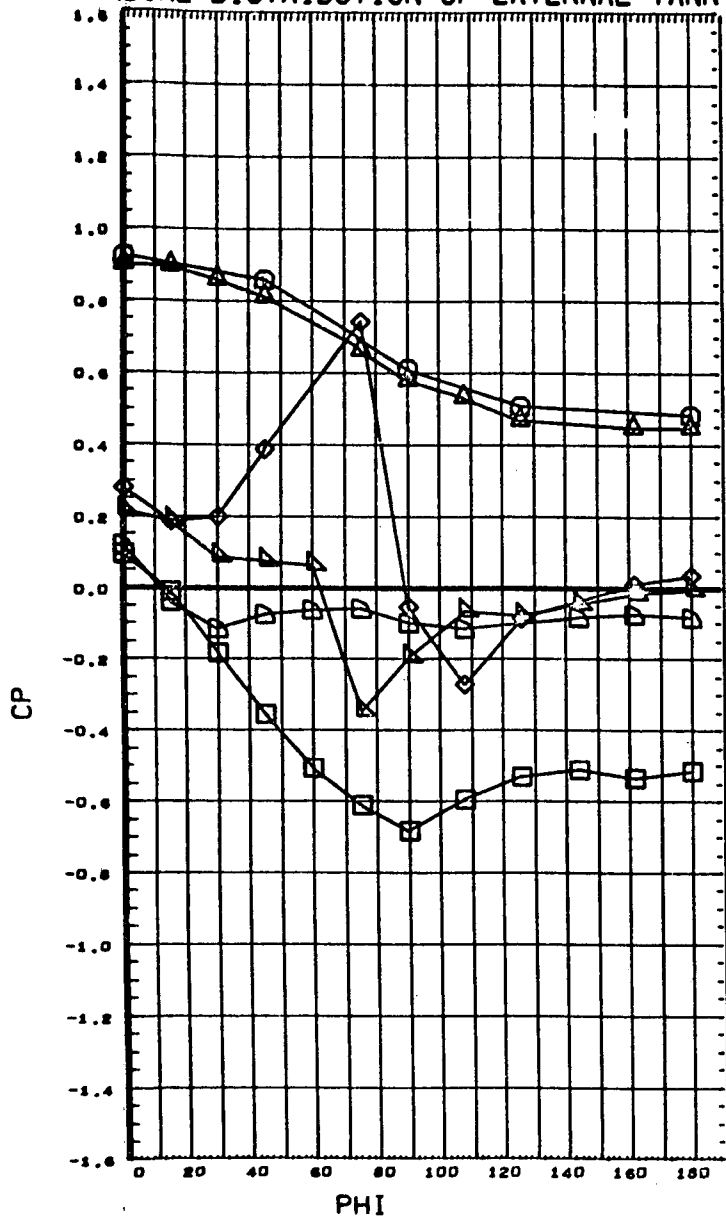
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	0.950
△	0.361		
◇	0.790		
□	1.066		
◇	2.162		
◇	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



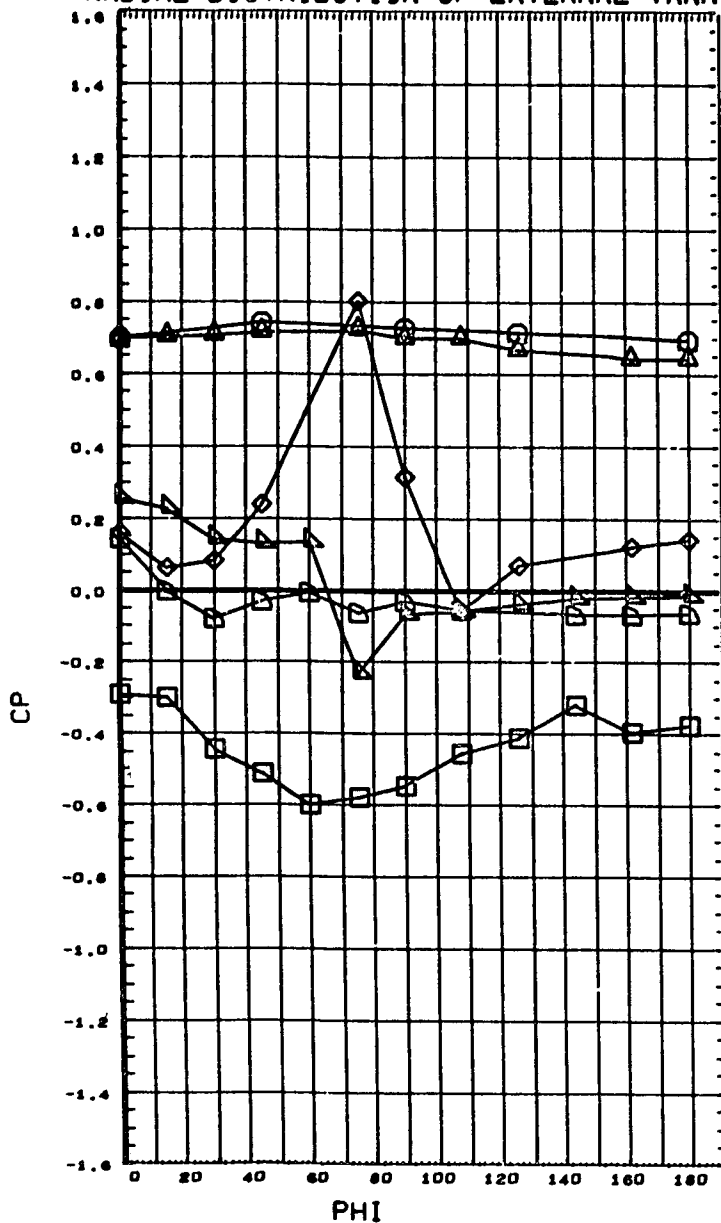
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	1.200
△	0.361	- 4.000	
◇	0.790		
□	1.060		
▽	2.162		
◇	3.148		

REFERENCE FILE

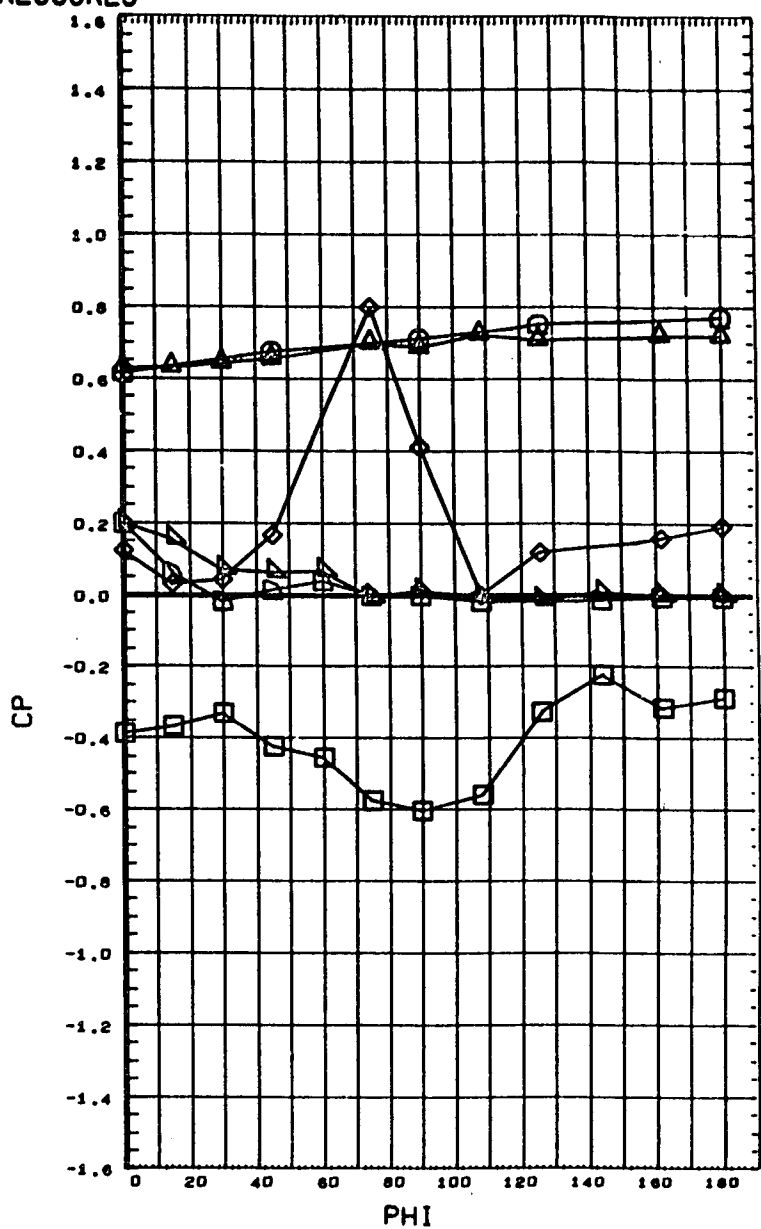
PARAMETRIC VALUES

BETA	0.000	ORBNIC	- 1.500
SRBCAP	0.025		

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

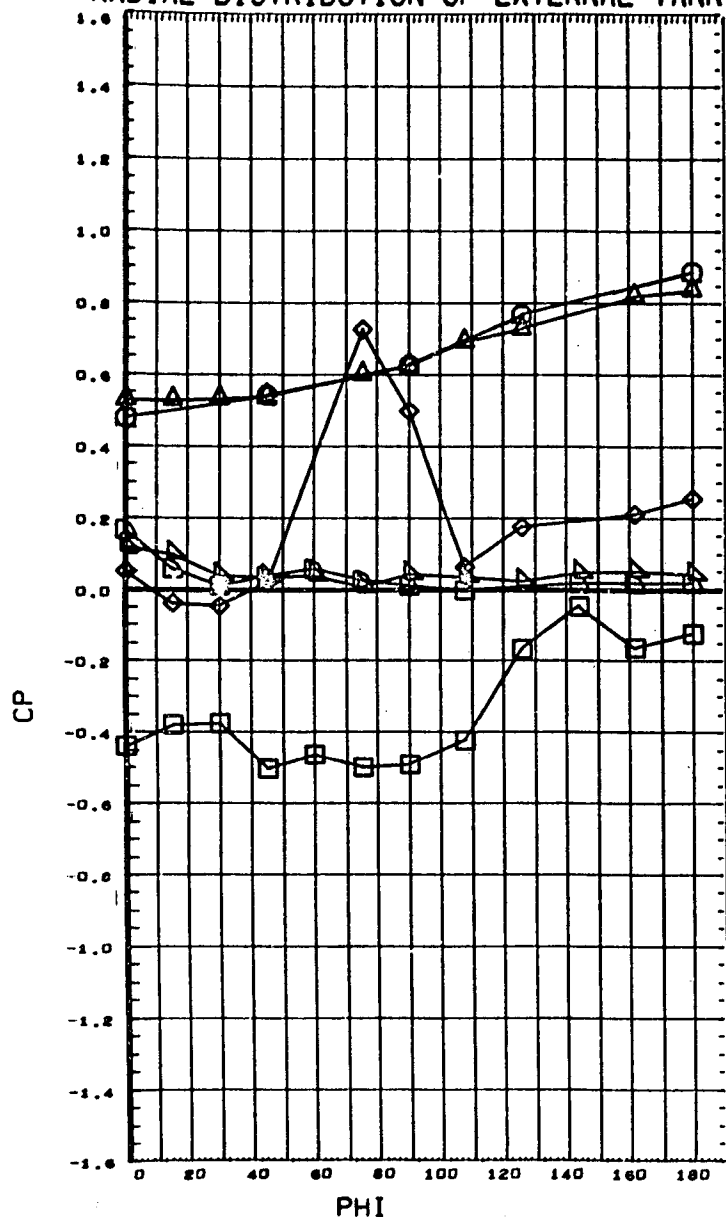


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.066		
▽	2.162		
	3.146	REFERENCE FILE	



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

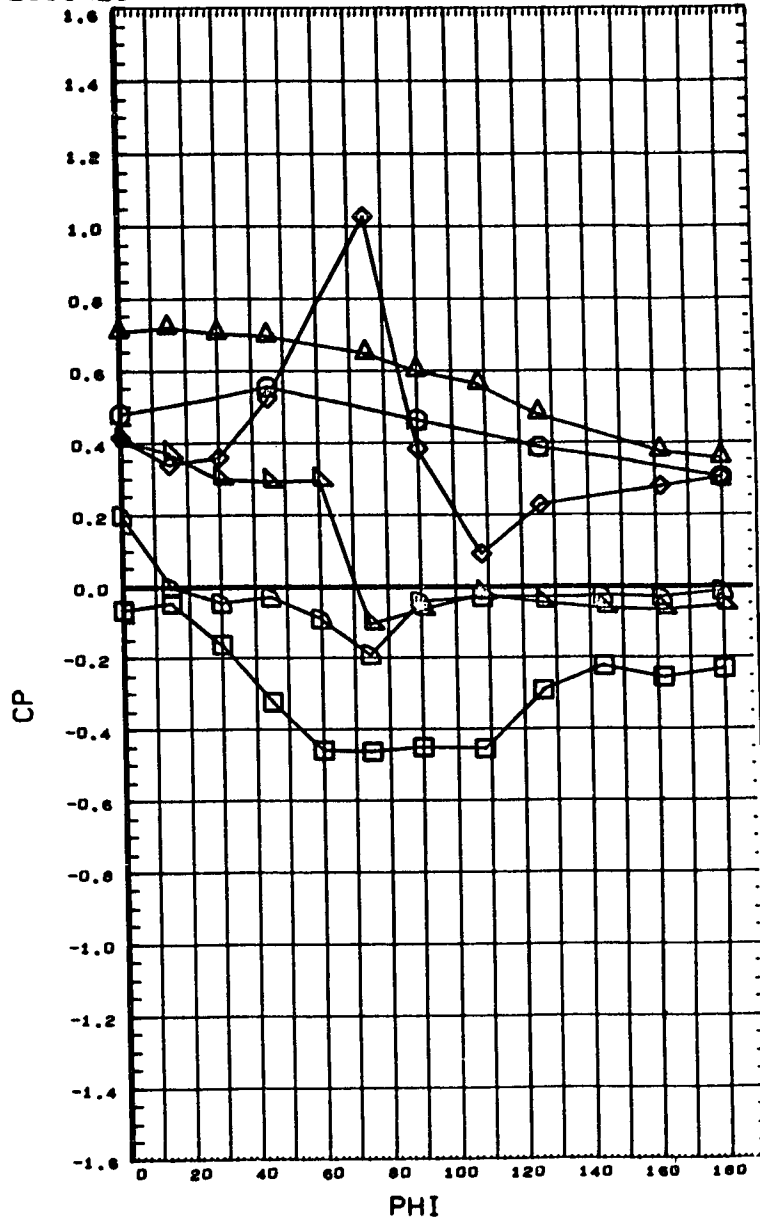
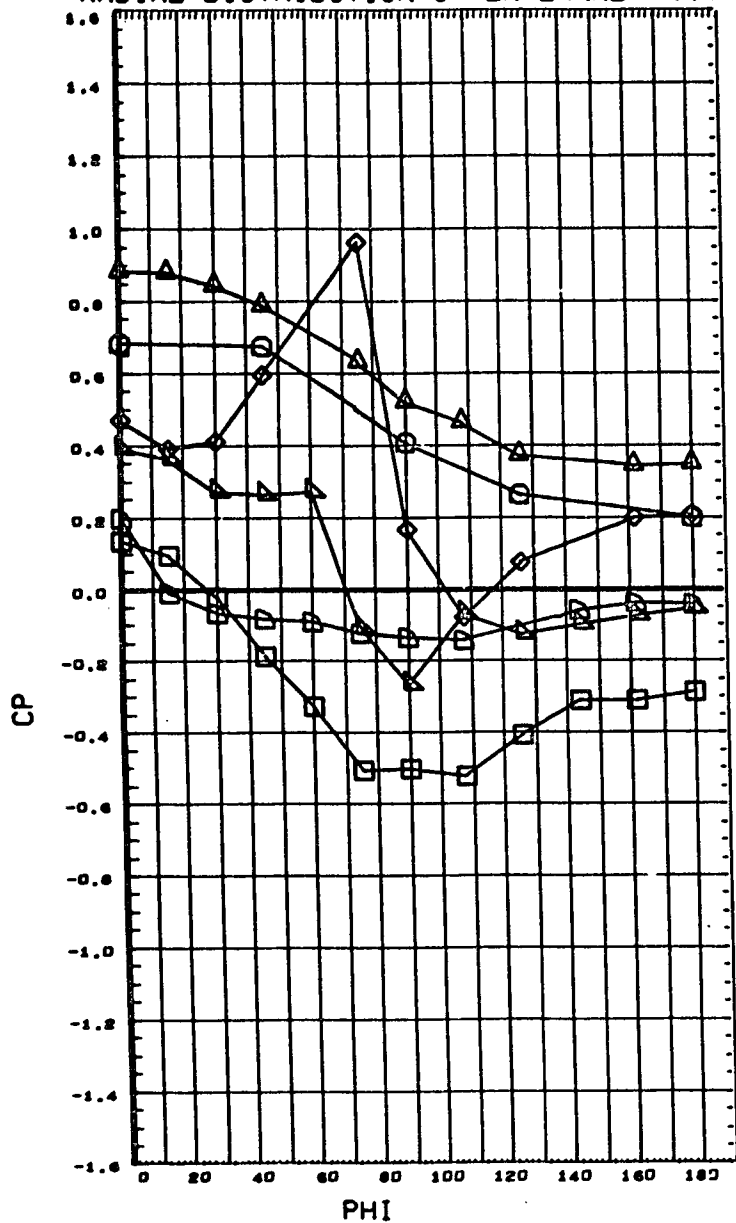
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.200
△	0.361		
◇	0.790		
□	1.066		
▽	2.162		
○	3.146	REFERENCE FILE	

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

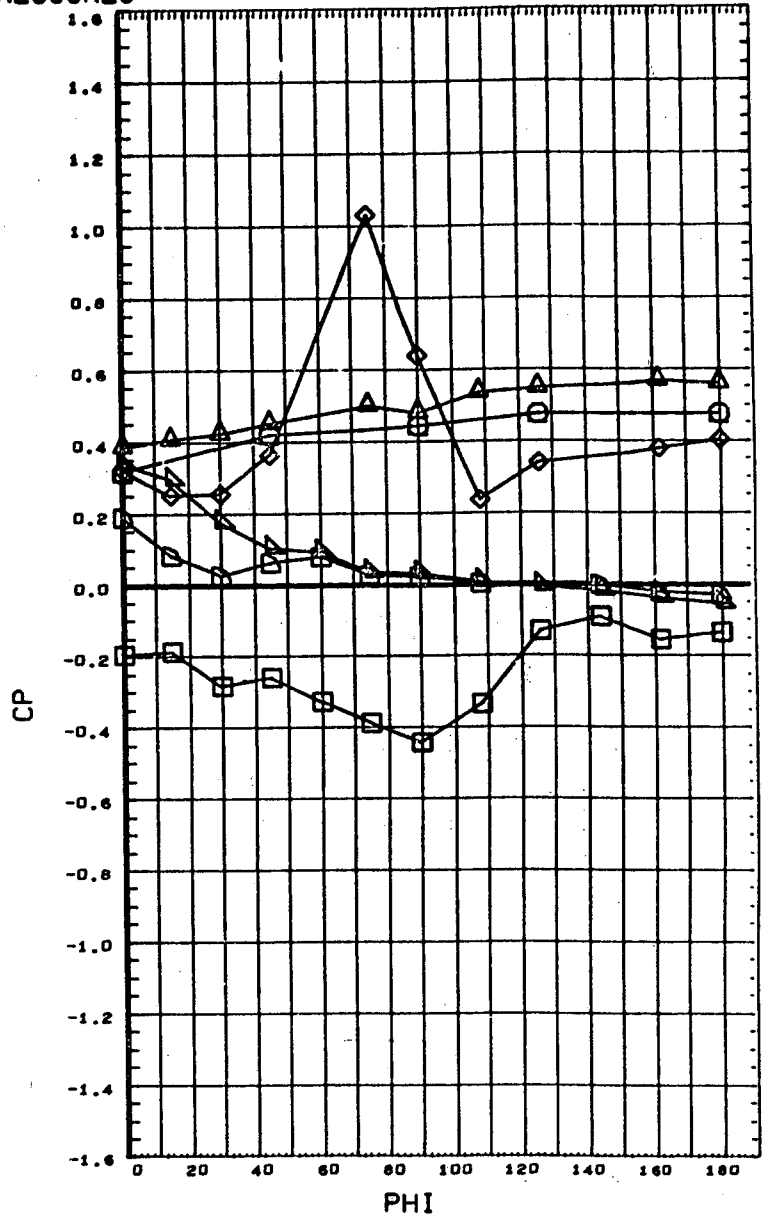
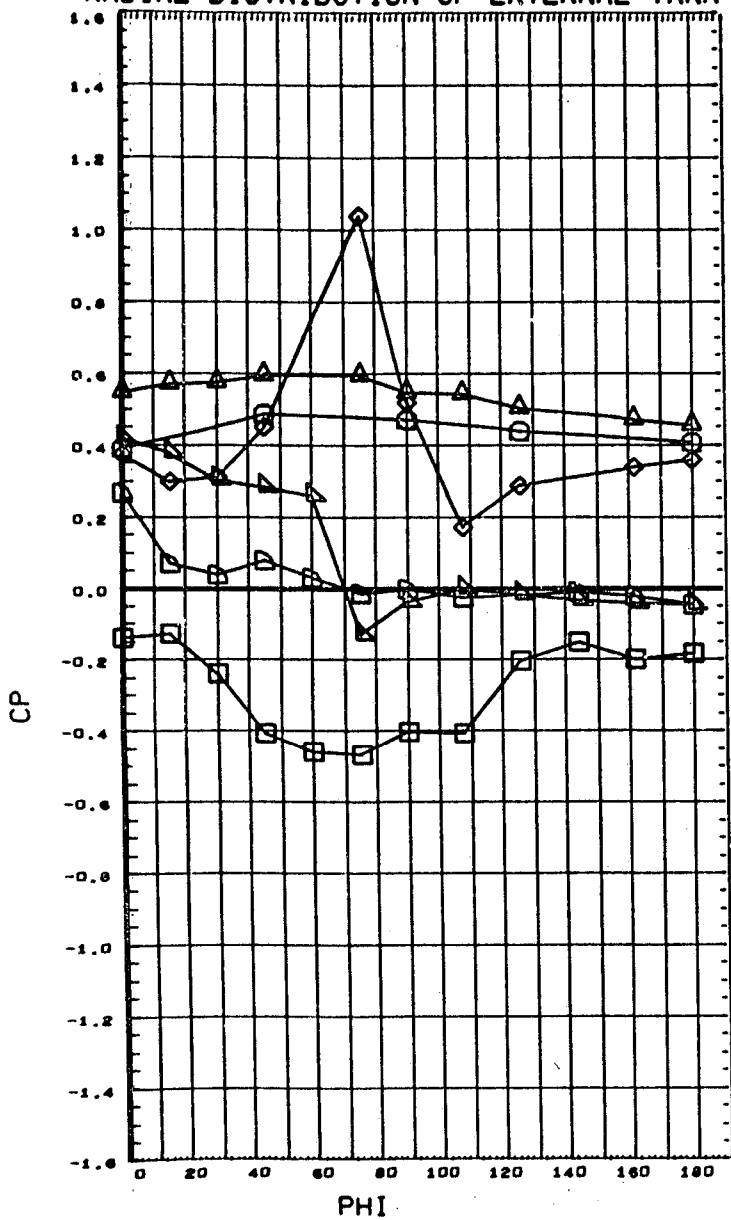
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.104	- 10.000	1.460
◇	0.361	- 4.000	
△	0.790		
□	1.000		
+	2.102		
×	3.140	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

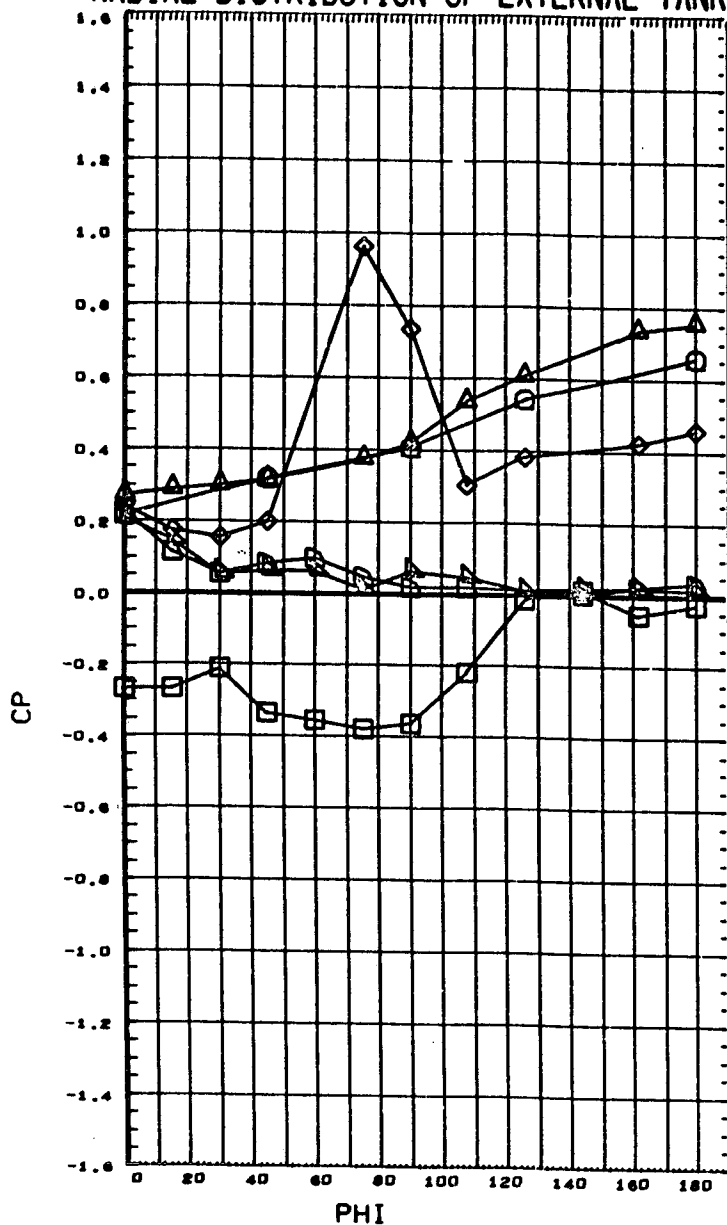


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.460
□	0.361	4.000	
◇	0.790		
△	1.068		
▽	2.162		
◇	3.148		

REFERENCE FILE

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

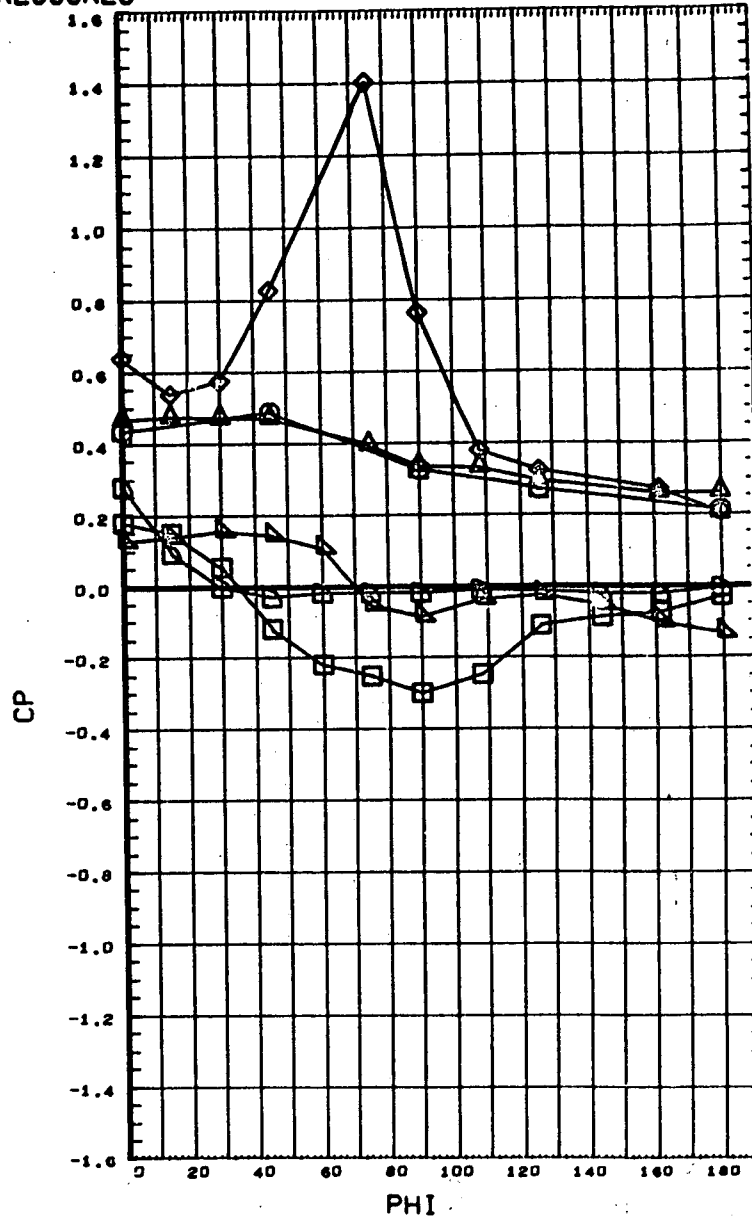
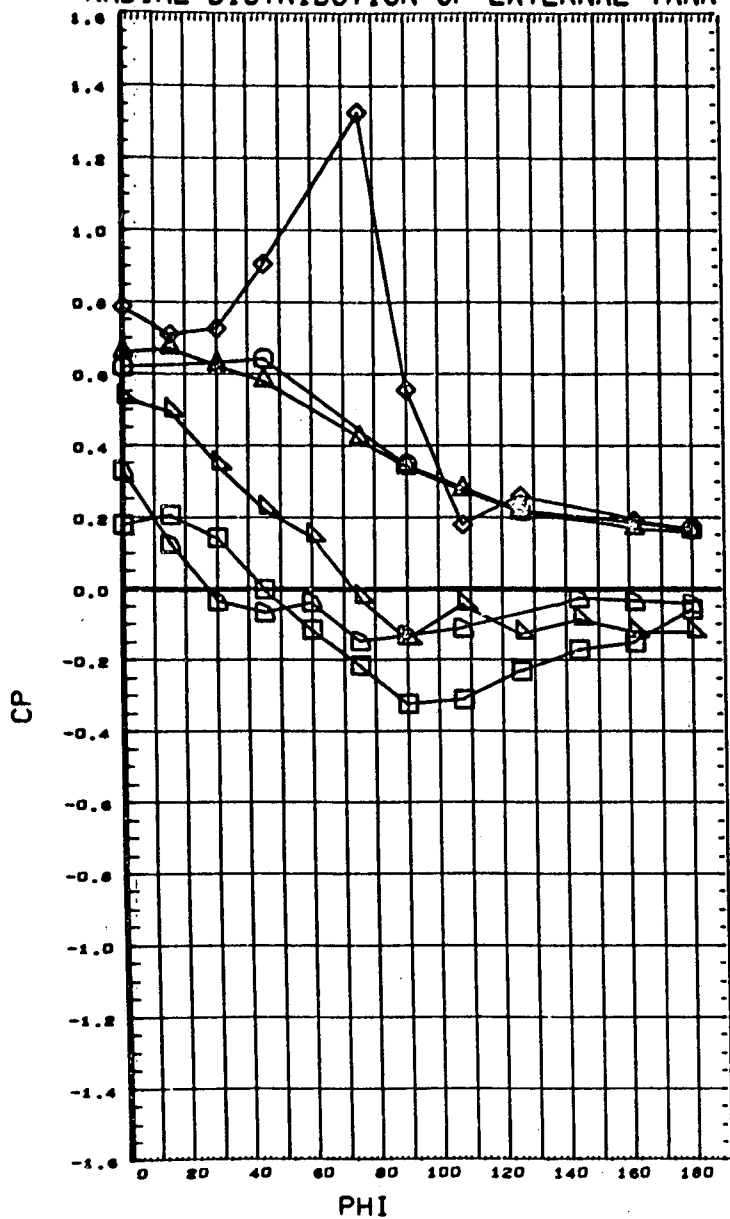
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.184	10.000	1.460
△	0.361		
◇	0.790		
□	1.068		
▽	2.162		
◇	3.148	REFERENCE FILE	

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

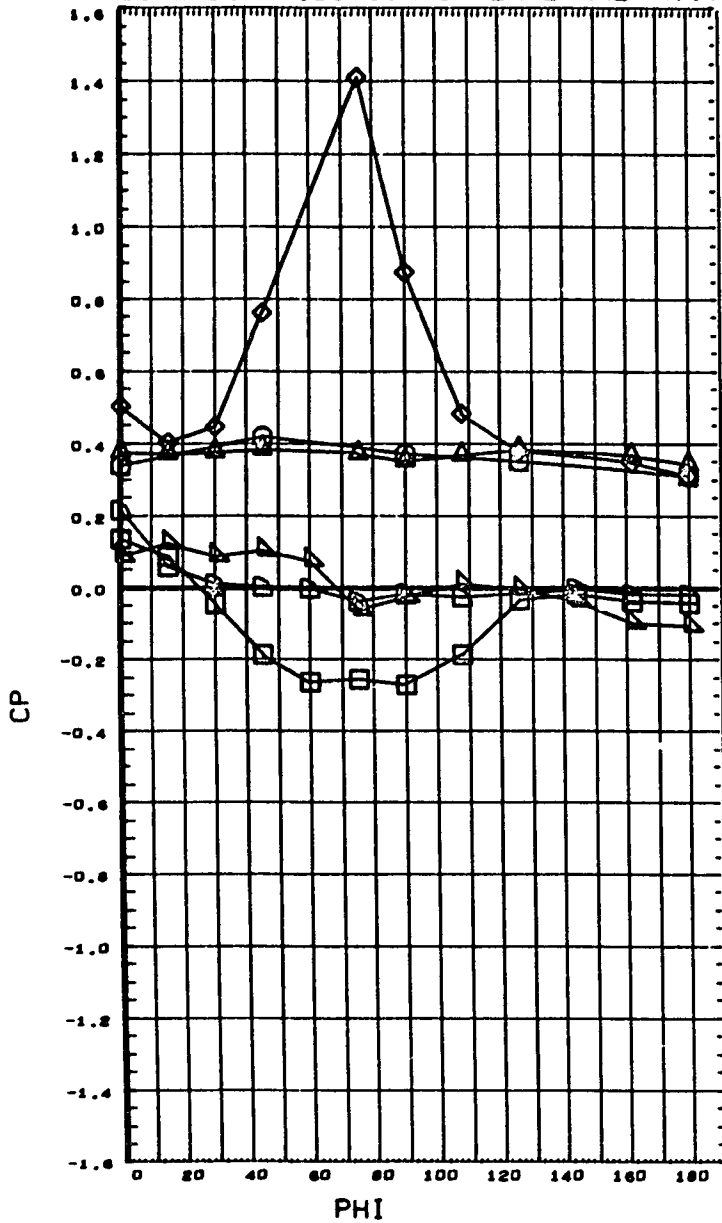
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



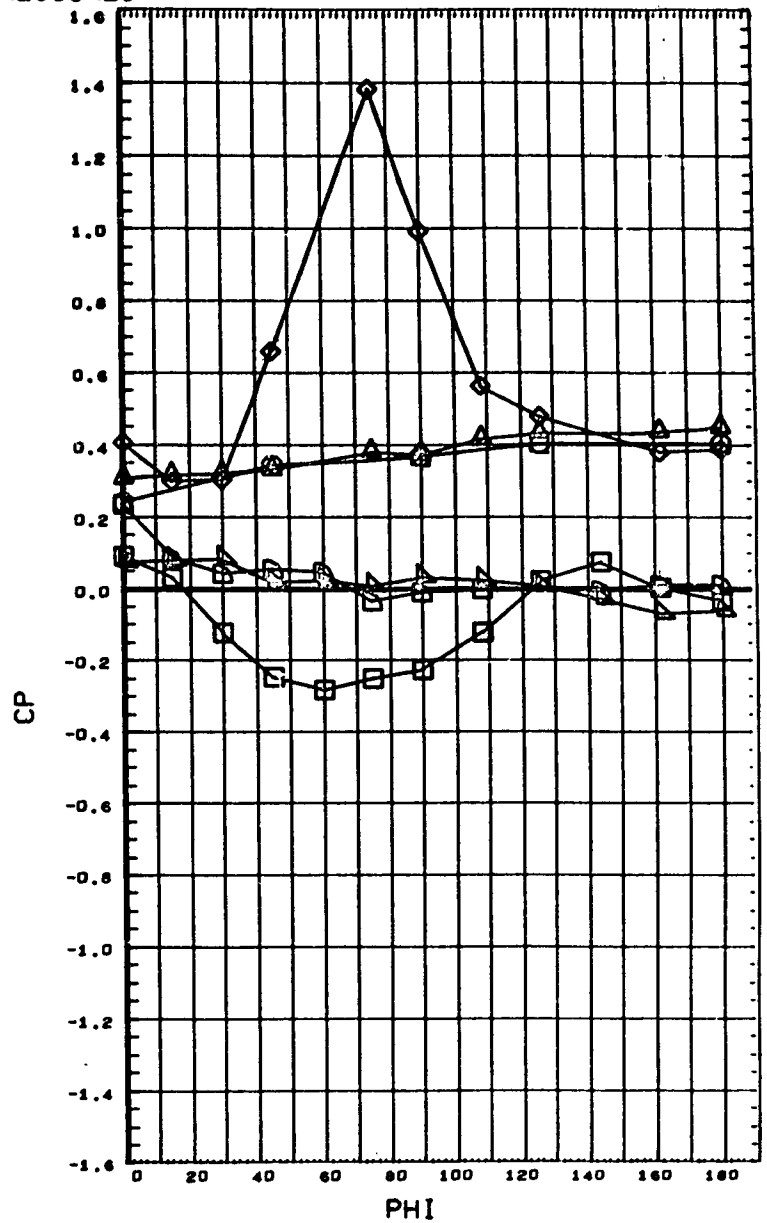
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	1.960
△	0.361	- 4.000	
◇	0.790		
□	1.066		
▤	2.162		
▥	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



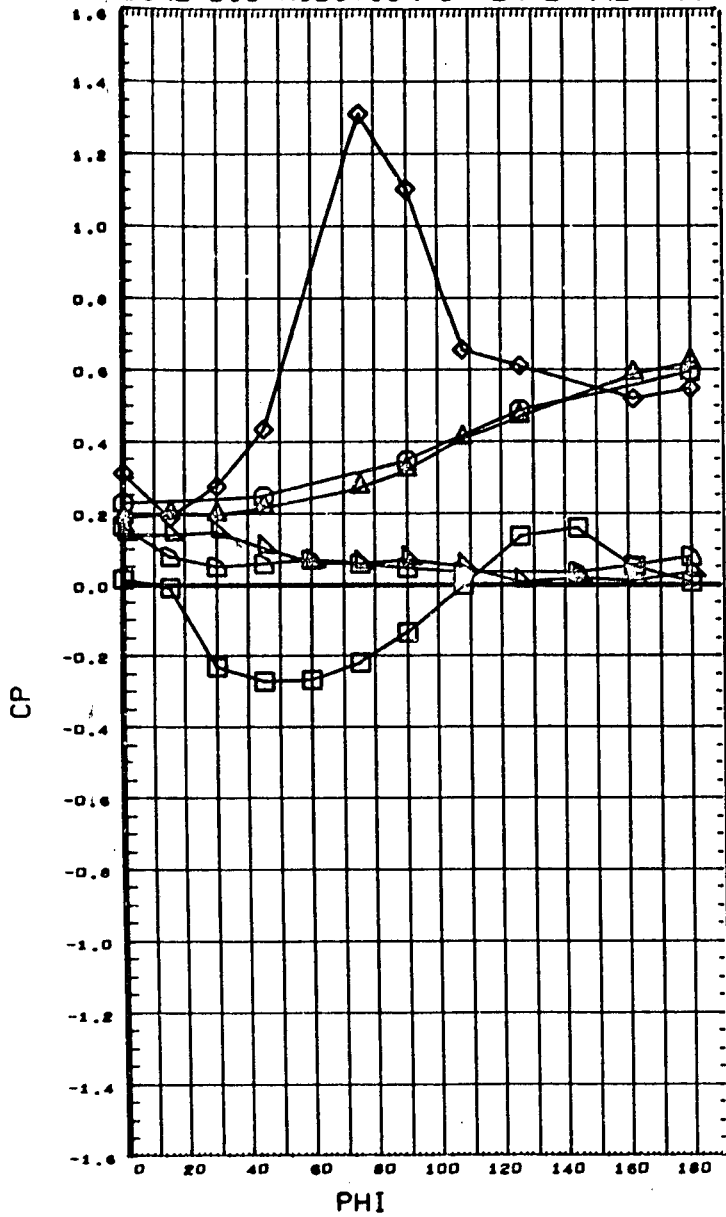
SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.960
◇	0.361	4.000	
△	0.790		
□	1.060		
▽	2.162		
◇	3.148	REFERENCE FILE	



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

2

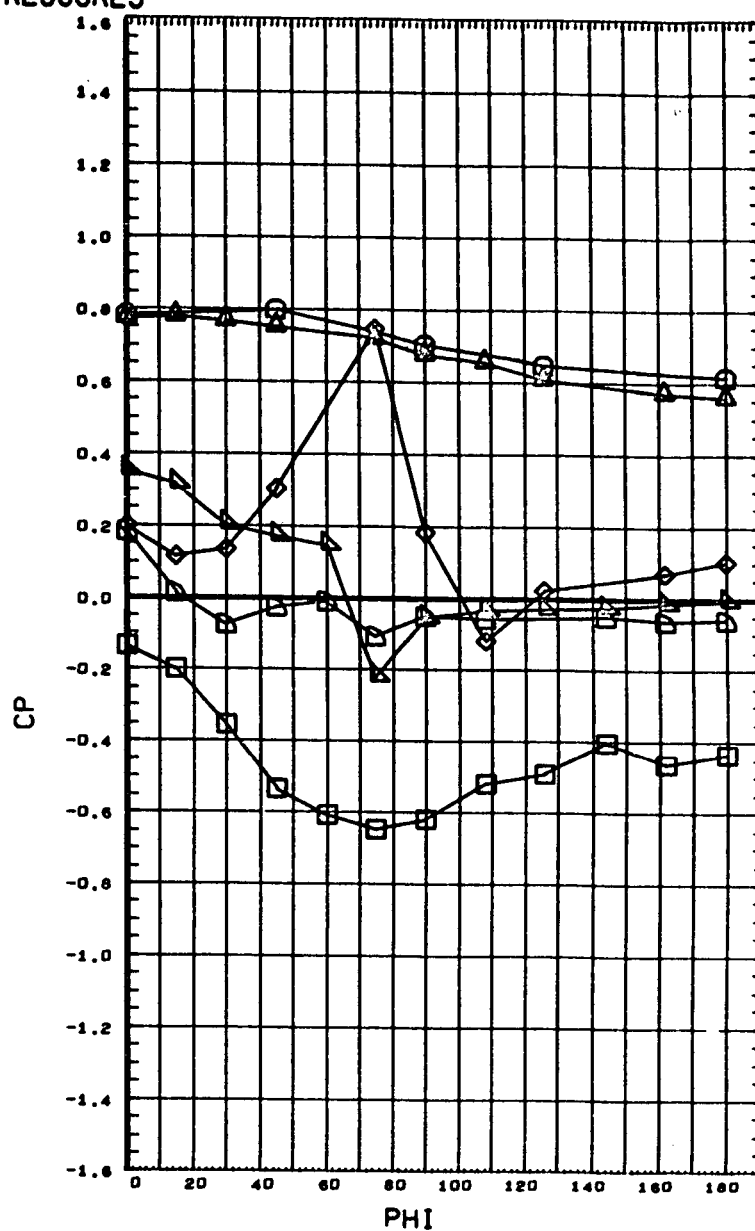
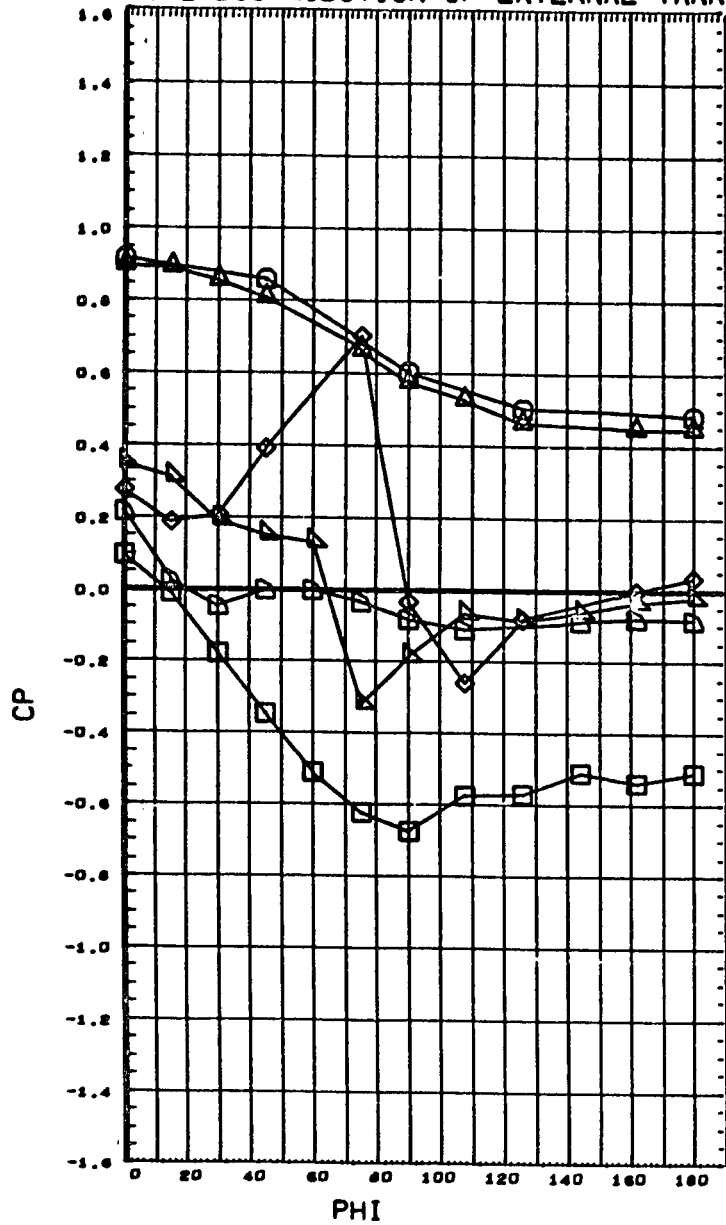
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.960
△	0.361		
◇	0.790		
◻	1.066		
▽	2.162		
◐	3.148	REFERENCE FILE	

PARAMETRIC VALUES			
BETA	0.000	ORBINC	- 1.500
SRBGAP	0.025		

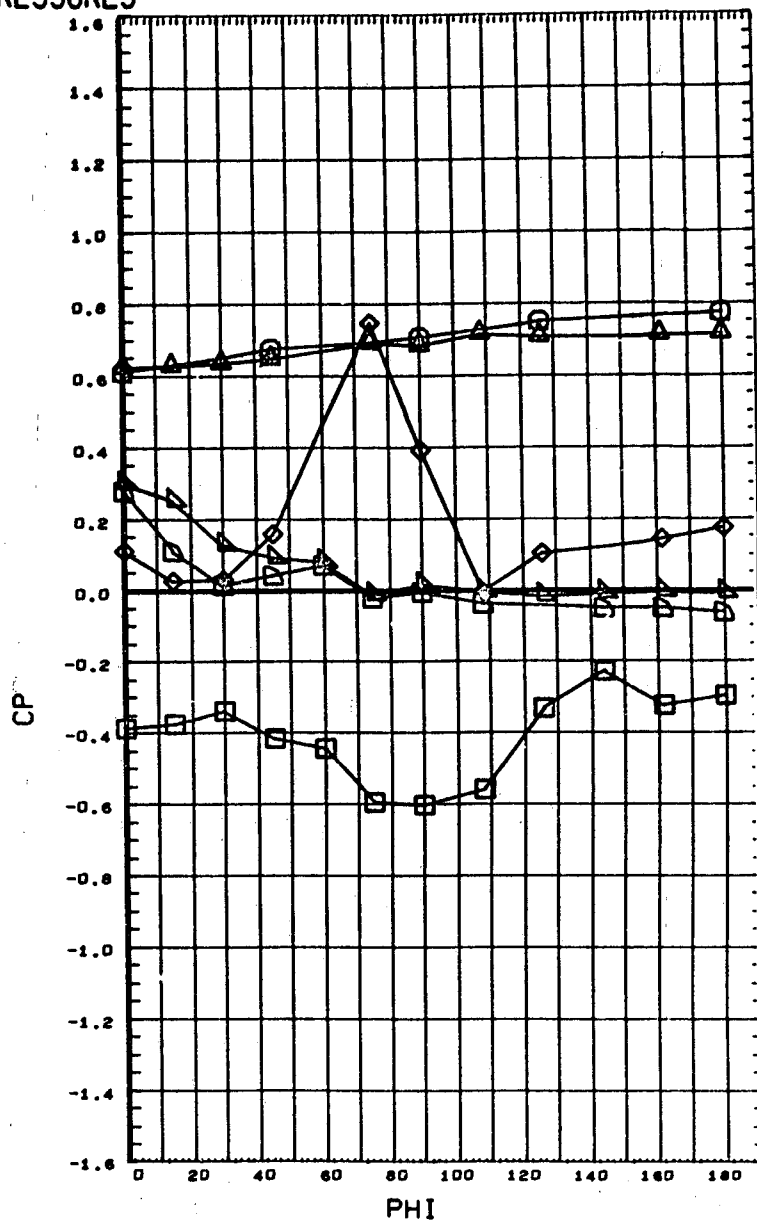
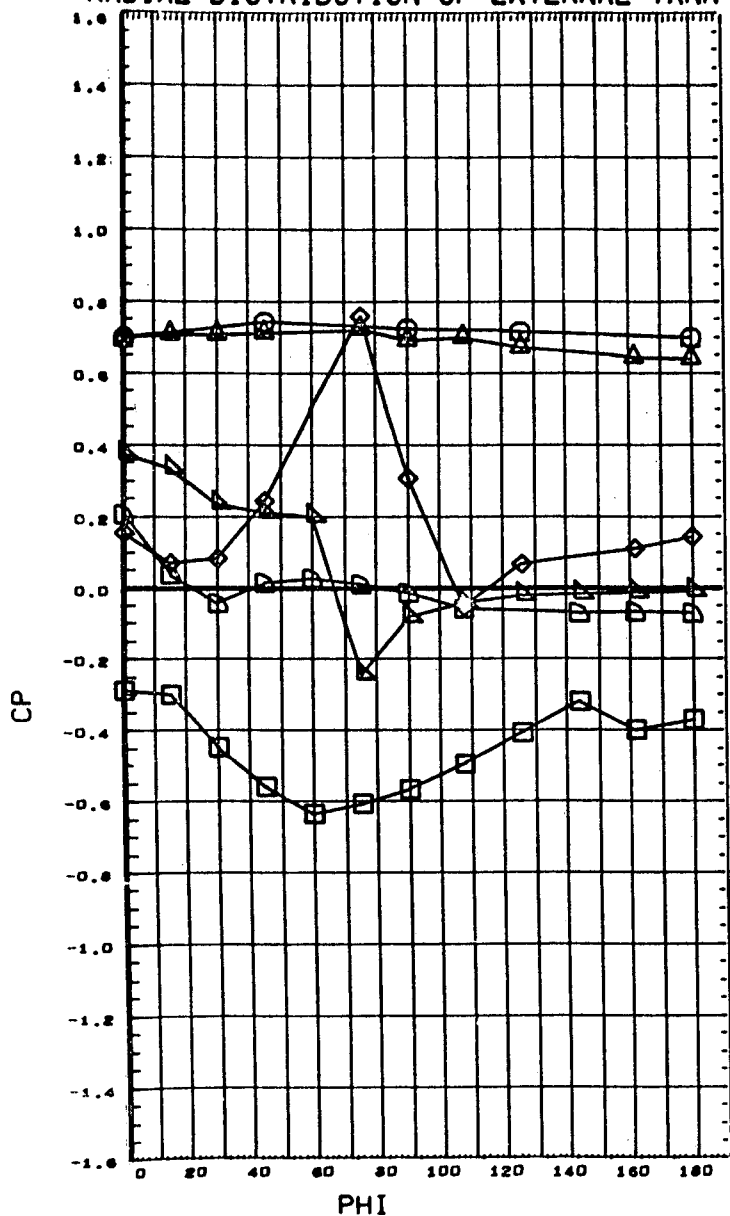
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	- 10.000	1.200
△	0.361	- 4.000	
◇	0.790		
□	1.068		
◇	2.162		
◇	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	ORBINC
SRBGAP	0.025	0.000

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

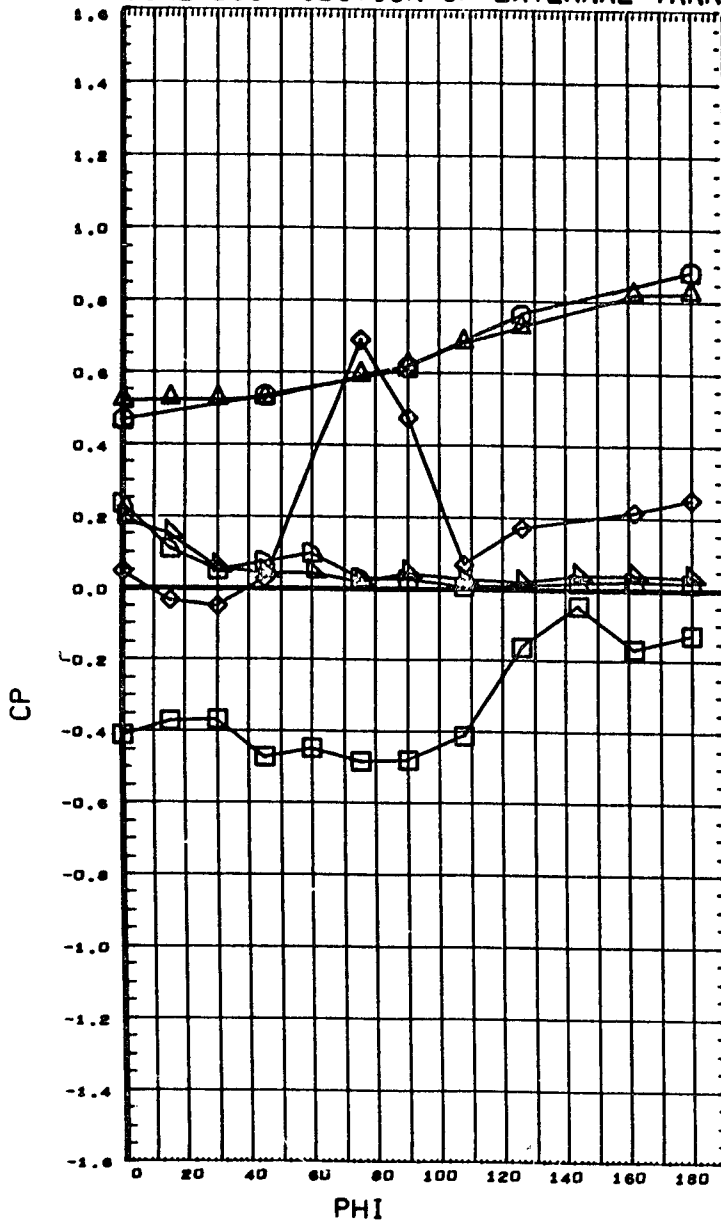


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.068		
+	2.162		
×	3.148		

REFERENCE FILE

PARAMETRIC VALUES			
BETA	0.000	ORBINC	0.000
SRBGAP	0.025		

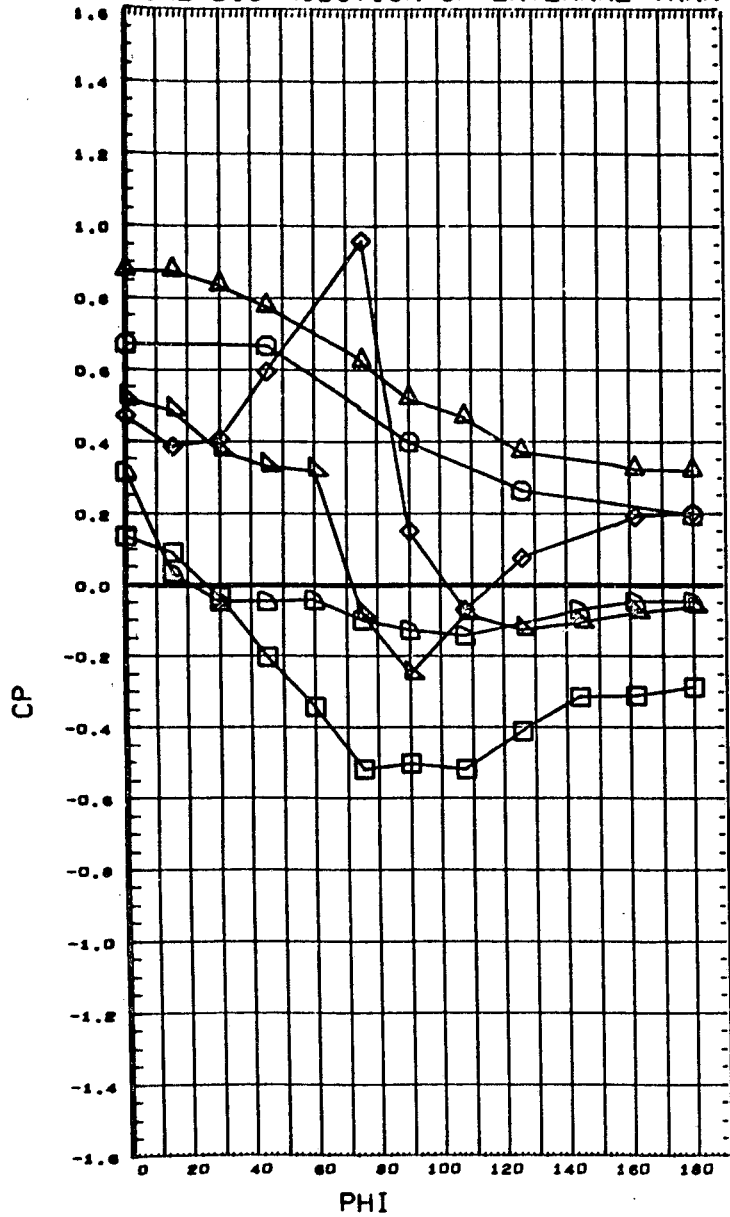
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.200
△	0.361		
◇	0.790		
□	1.066		
▽	2.162		
—	3.146	REFERENCE FILE	

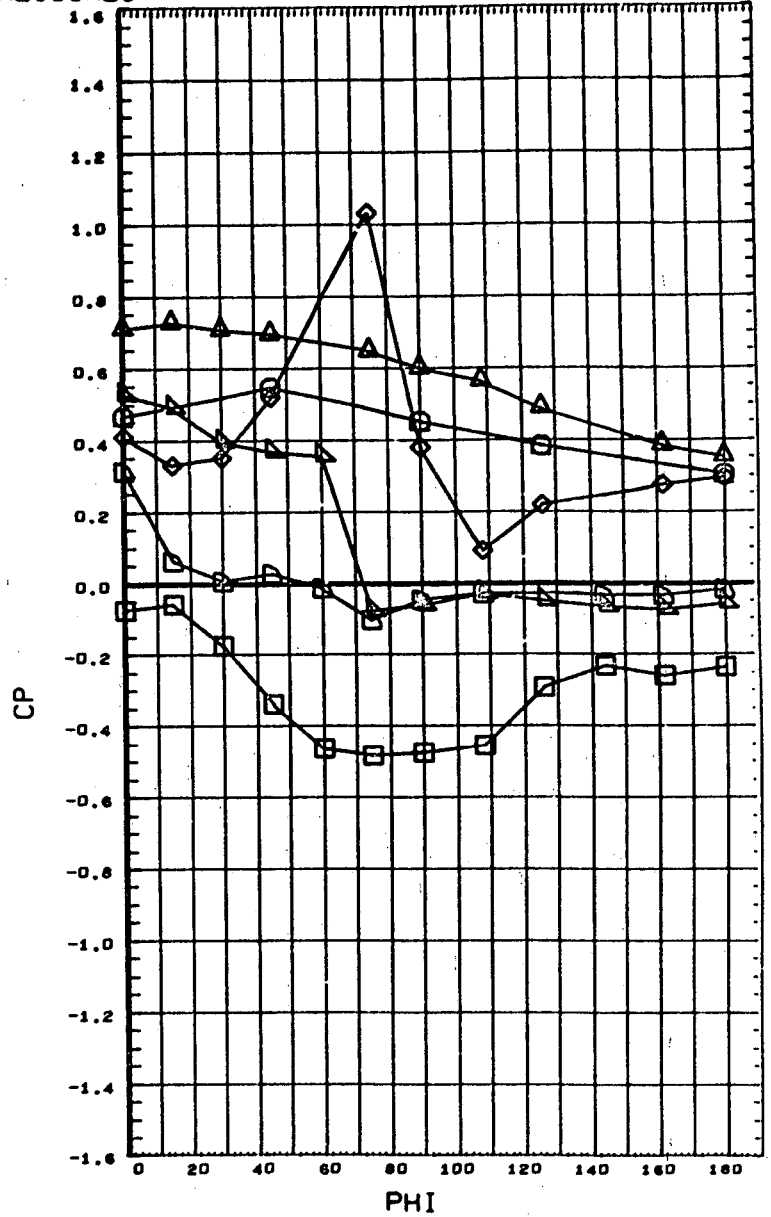
PARAMETRIC VALUES			
BETA	0.000	ORBINC	0.000
SRBGAP	0.025		

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



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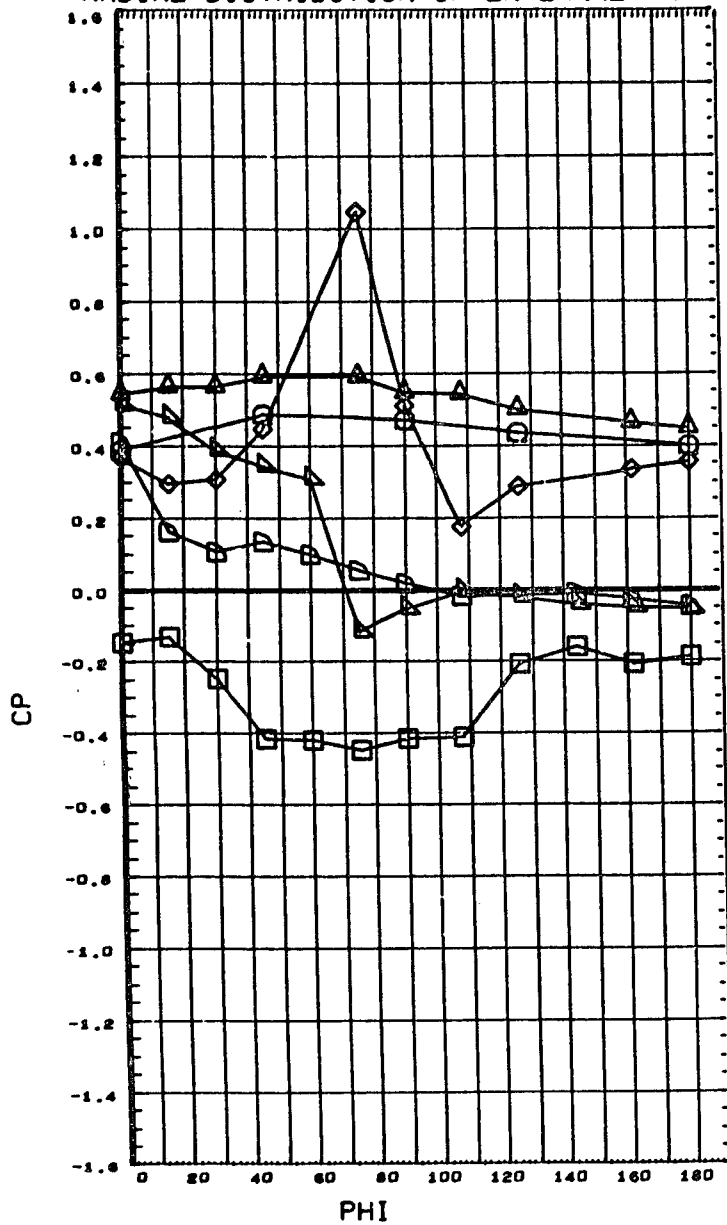
SYMBOL	X/LREF	ALPHA	MACH
△	0.164	- 10.000	1.460
○	0.361	- 4.000	
□	0.790		
◇	1.068		
	2.162		
	3.148	REFERENCE FILE	



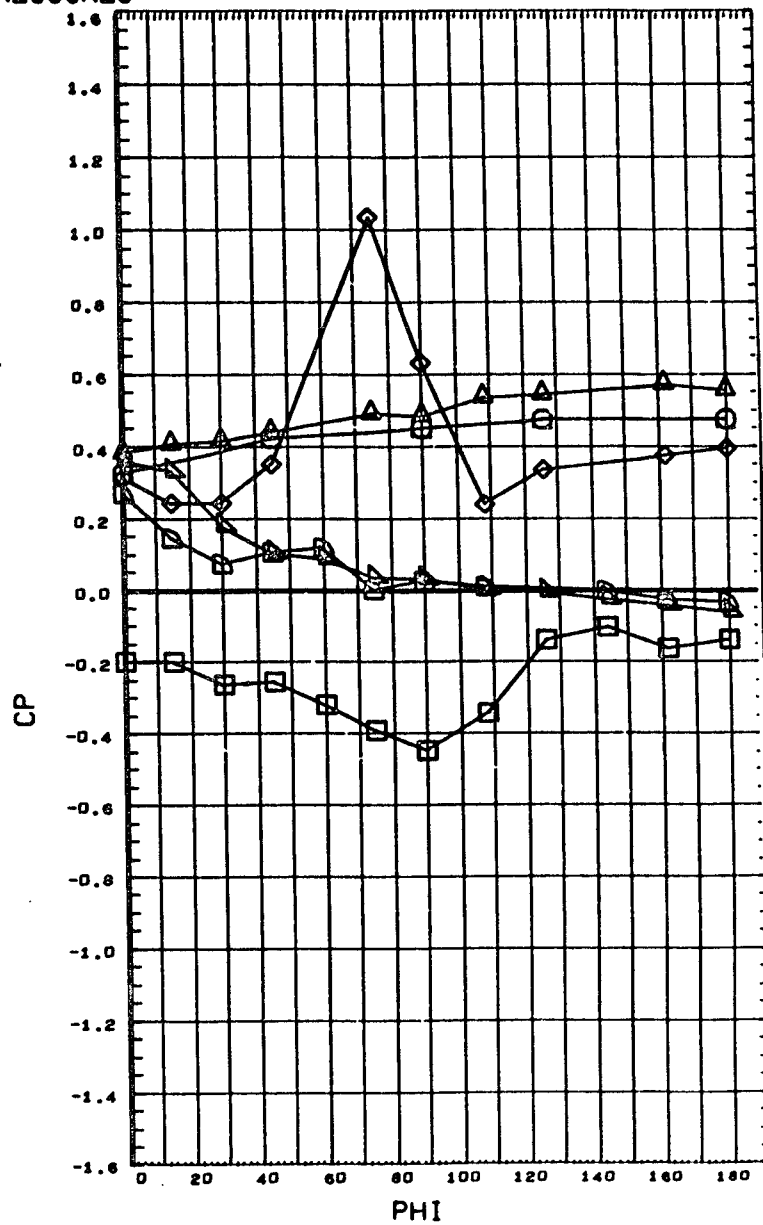
PHI

PARAMETRIC VALUES		
BETA	0.000	ORBINC
SRBGAP	0.025	0.000

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

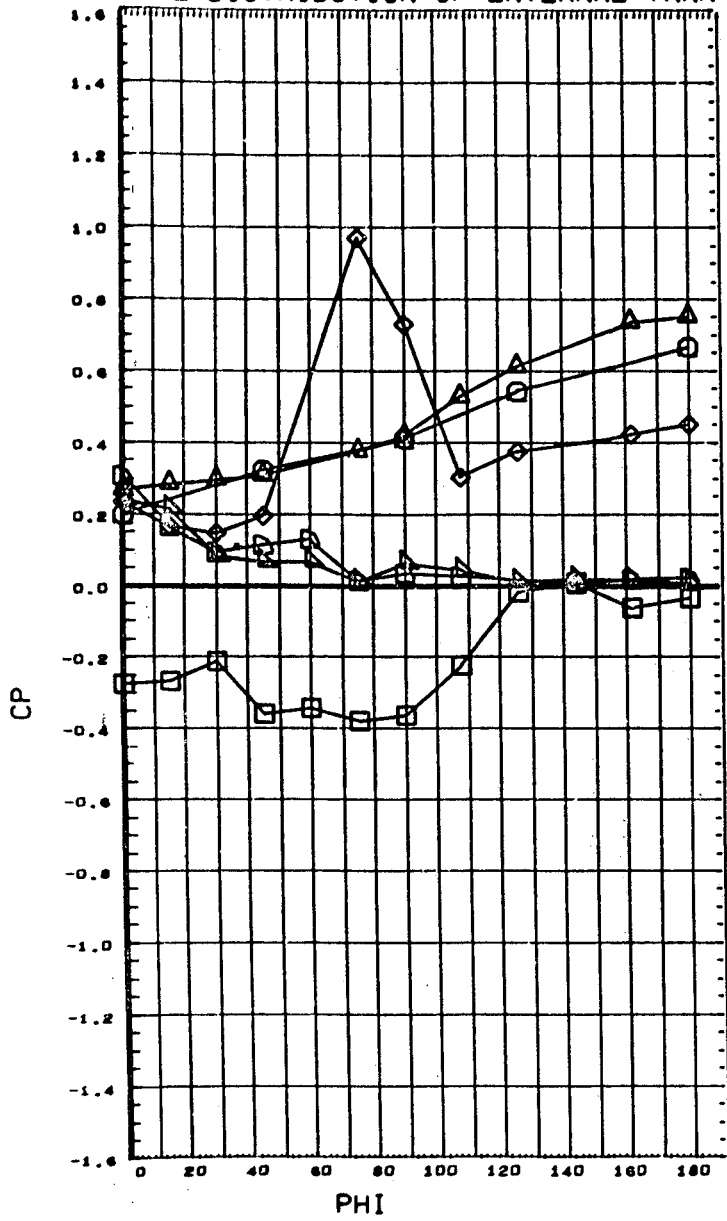


SYMBOL	X/LREF	ALPHA	MACH
○	0.164	0.000	1.460
△	0.361	4.000	
◇	0.790		
□	1.066		
▽	2.162		
◇	3.146	REFERENCE FILE	



PARAMETRIC VALUES		
BETA	0.000	ORBINC
SRBGAP	0.025	0.000

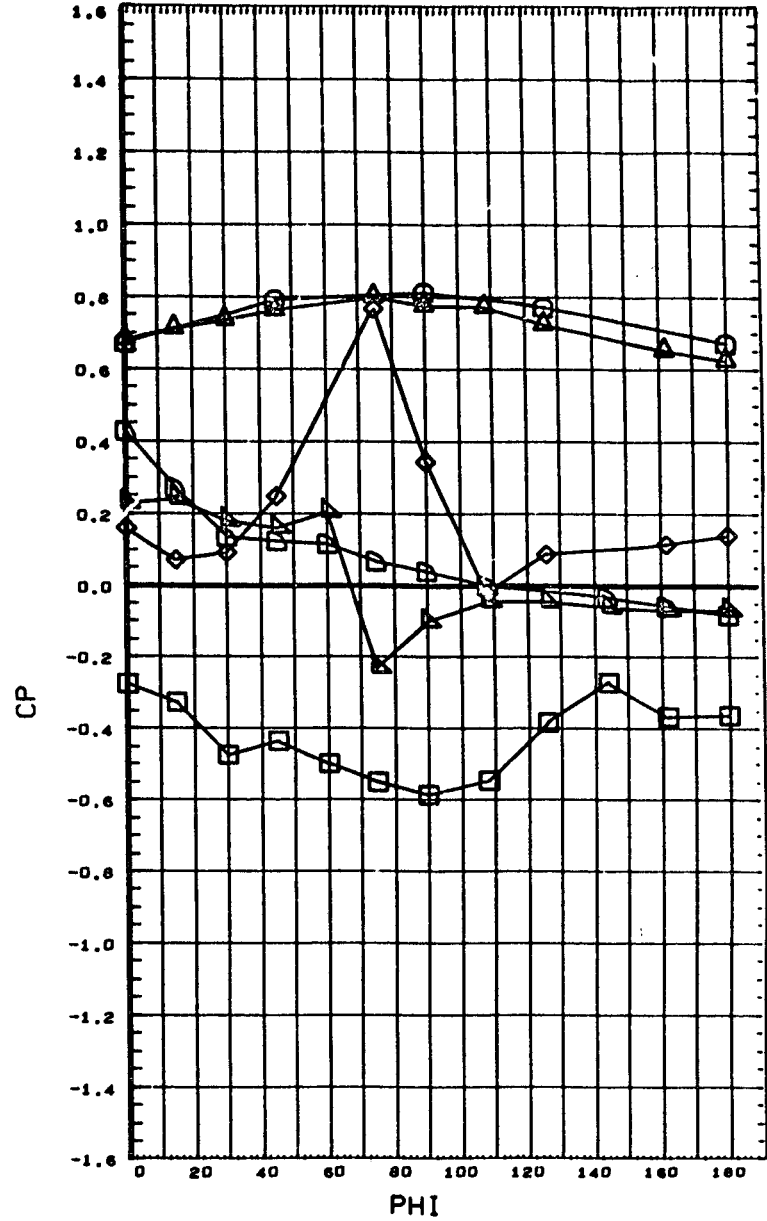
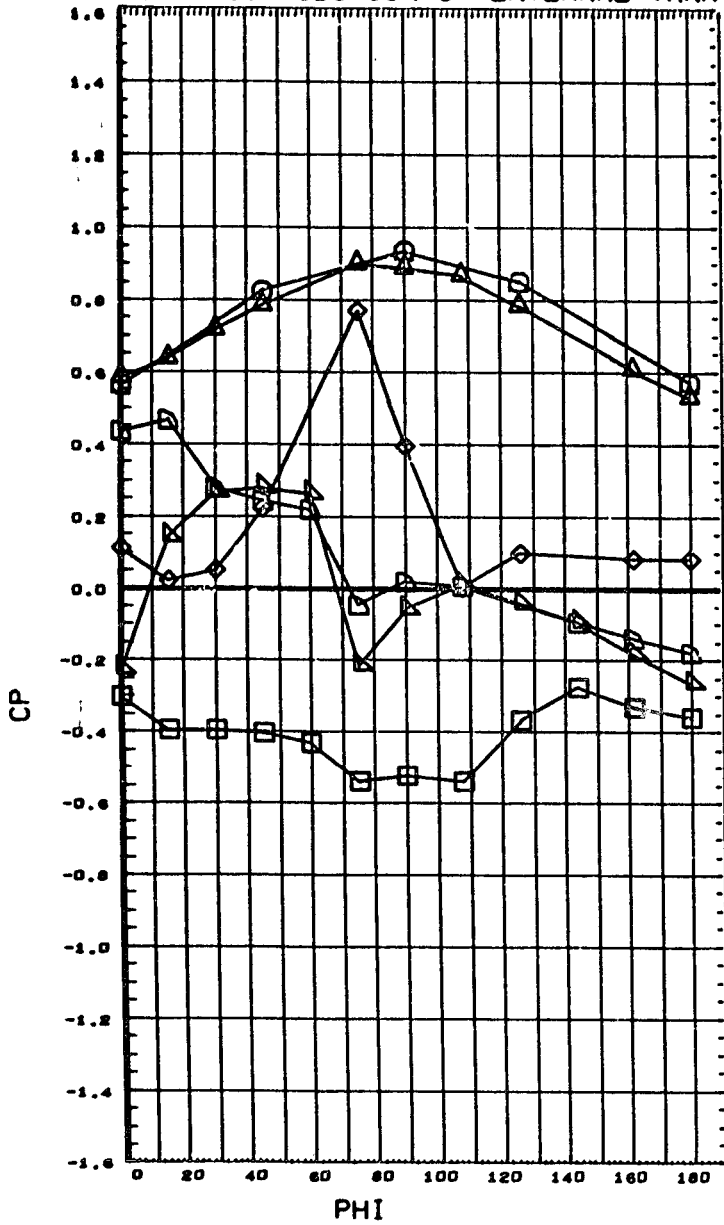
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.164	10.000	1.460
△	0.361		
◇	0.790		
◐	1.068		
◑	2.162		
◒	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
BETA	0.000	ORBINC
SRBGAP	0.025	0.000

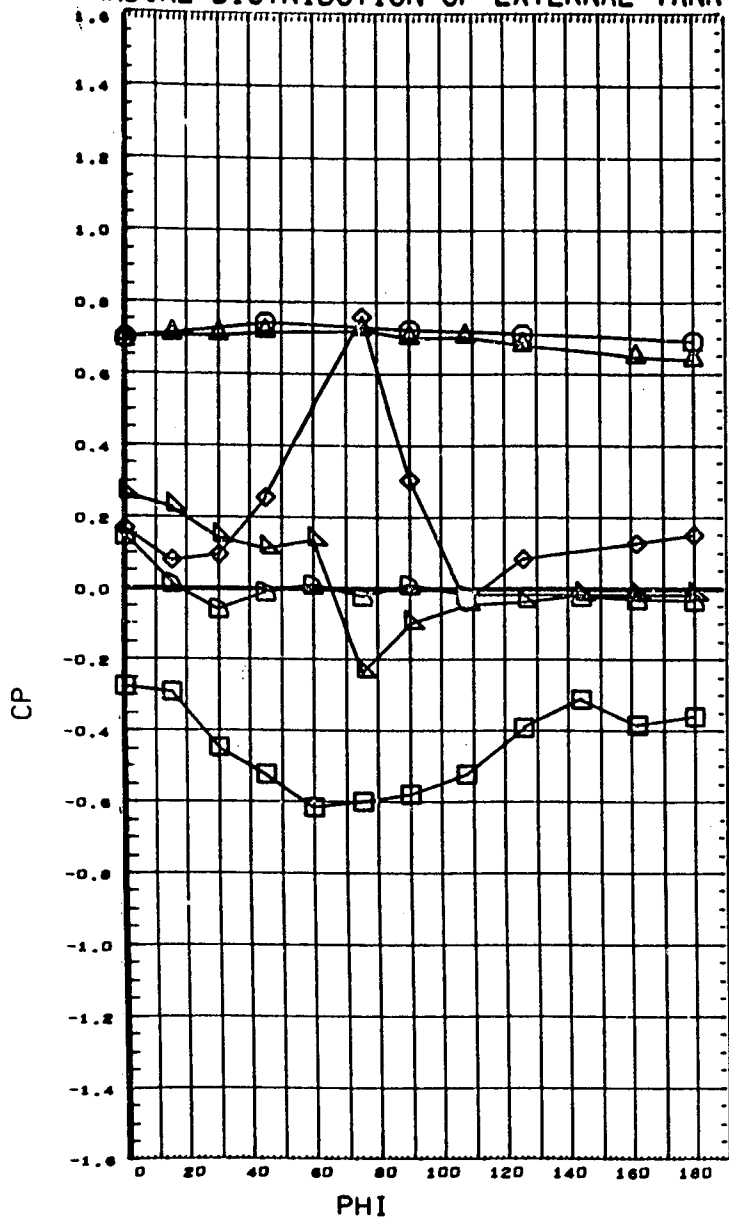
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	BETA	MACH
△	0.164	- 10.000	1.200
◇	0.361	- 4.000	
□	0.790		
○	1.068		
×	2.162		
	3.148	REFERENCE FILE	

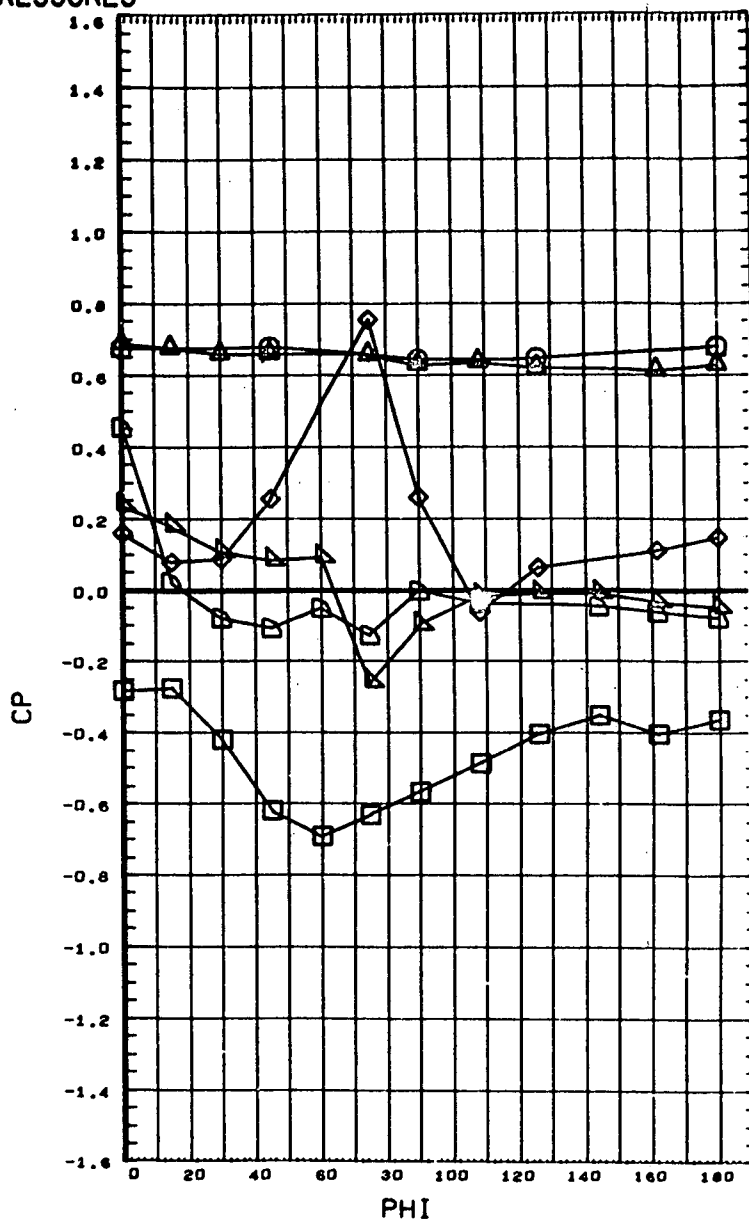
PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



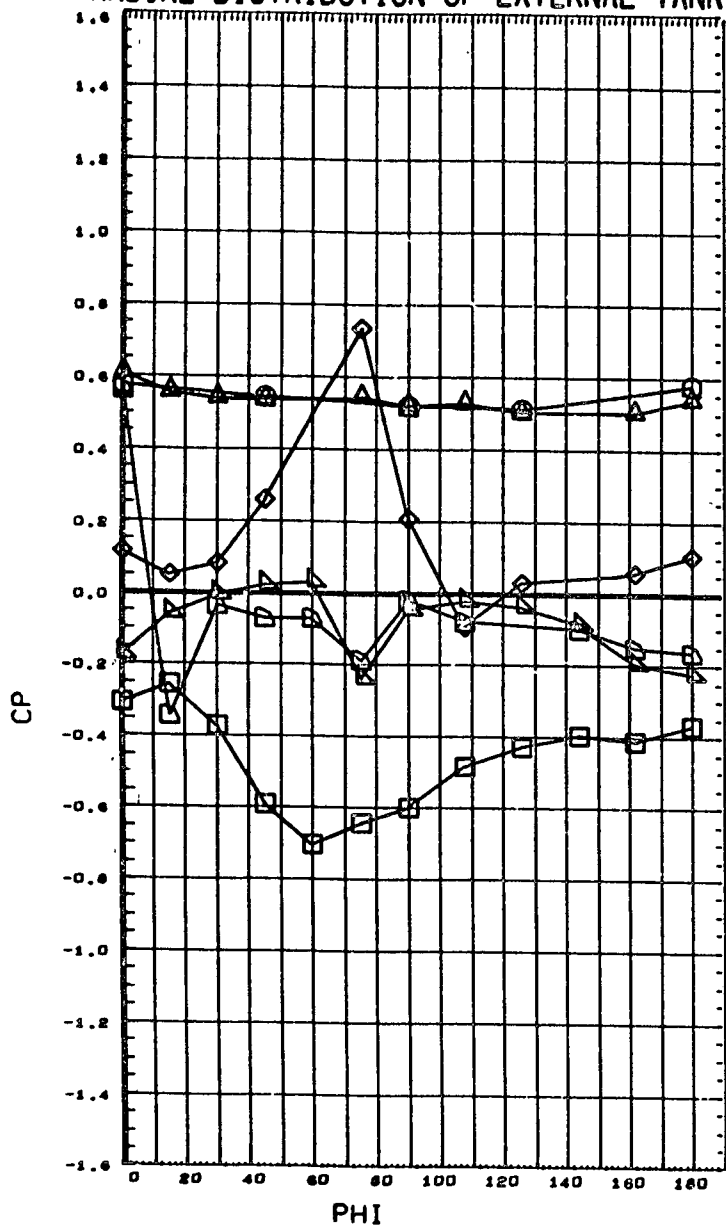
SYMBOL	X/LREF	BETA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
◇	0.790		
□	1.066		
◻	2.162		
◻	3.148		

REFERENCE FILE



PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

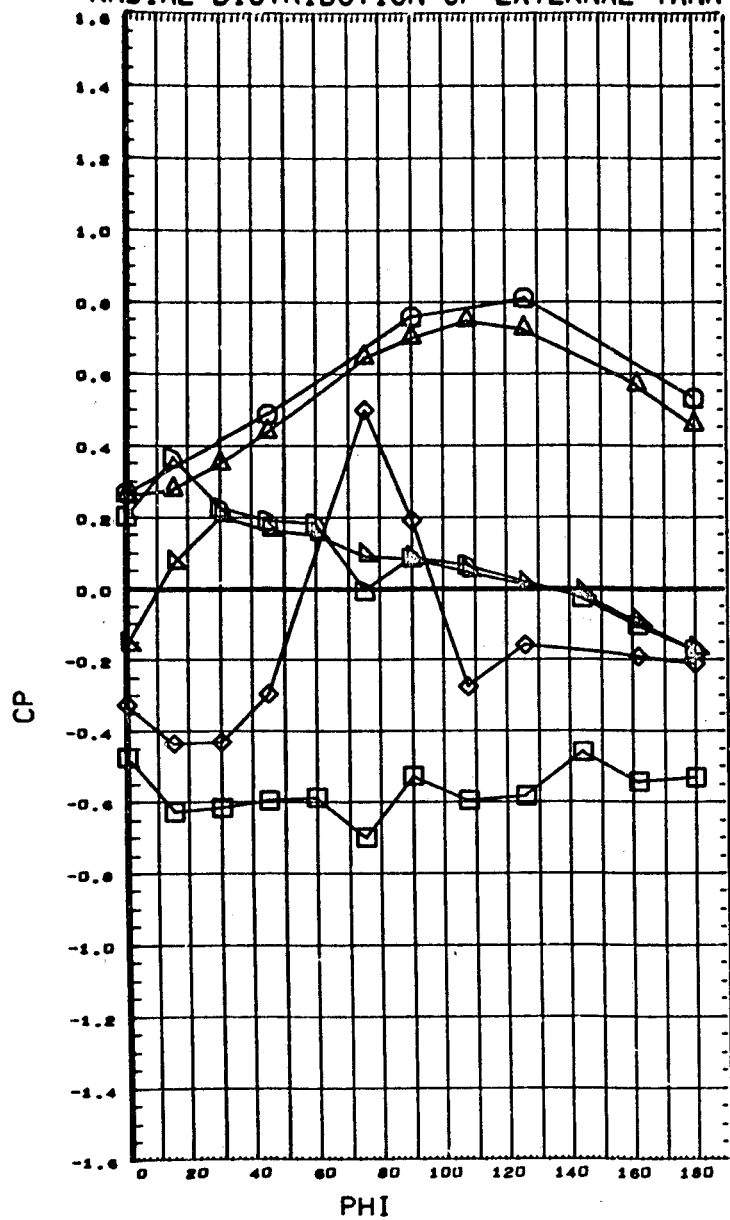
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



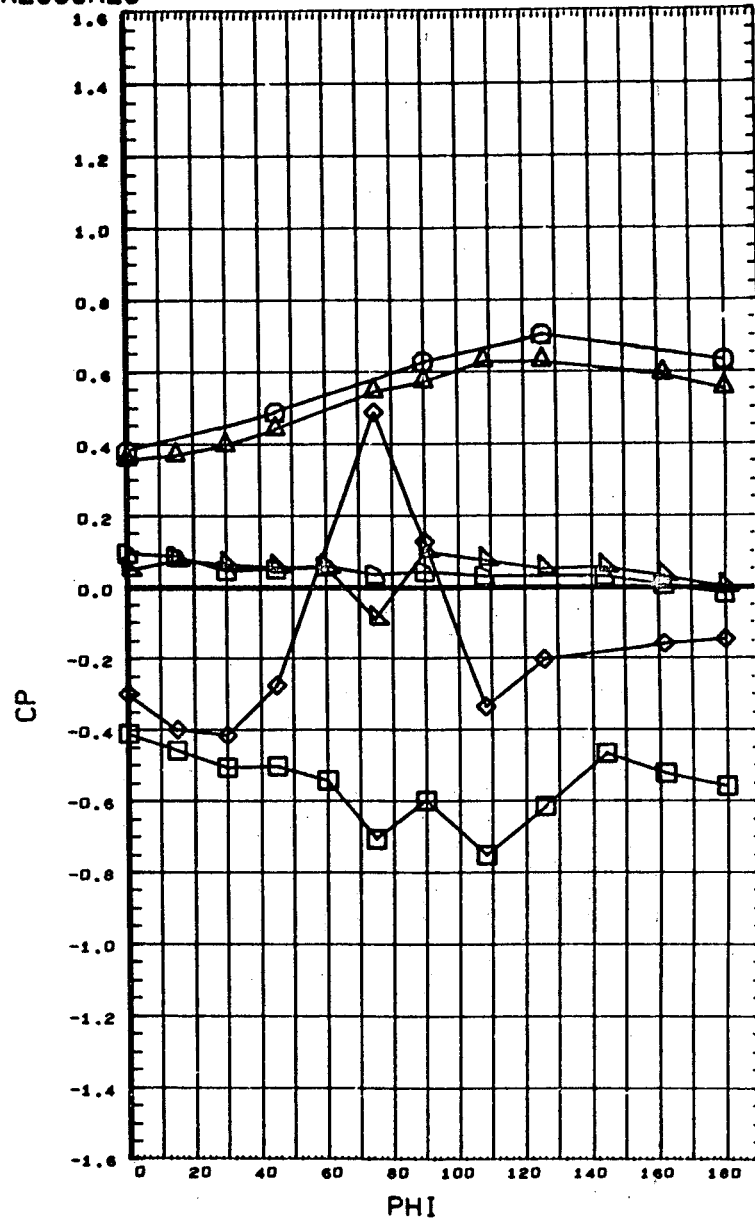
SYMBOL	X/LREF	BETA	MACH
◇	0.164	10.000	1.200
△	0.361		
□	0.790		
○	1.066		
×	2.162		
	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES

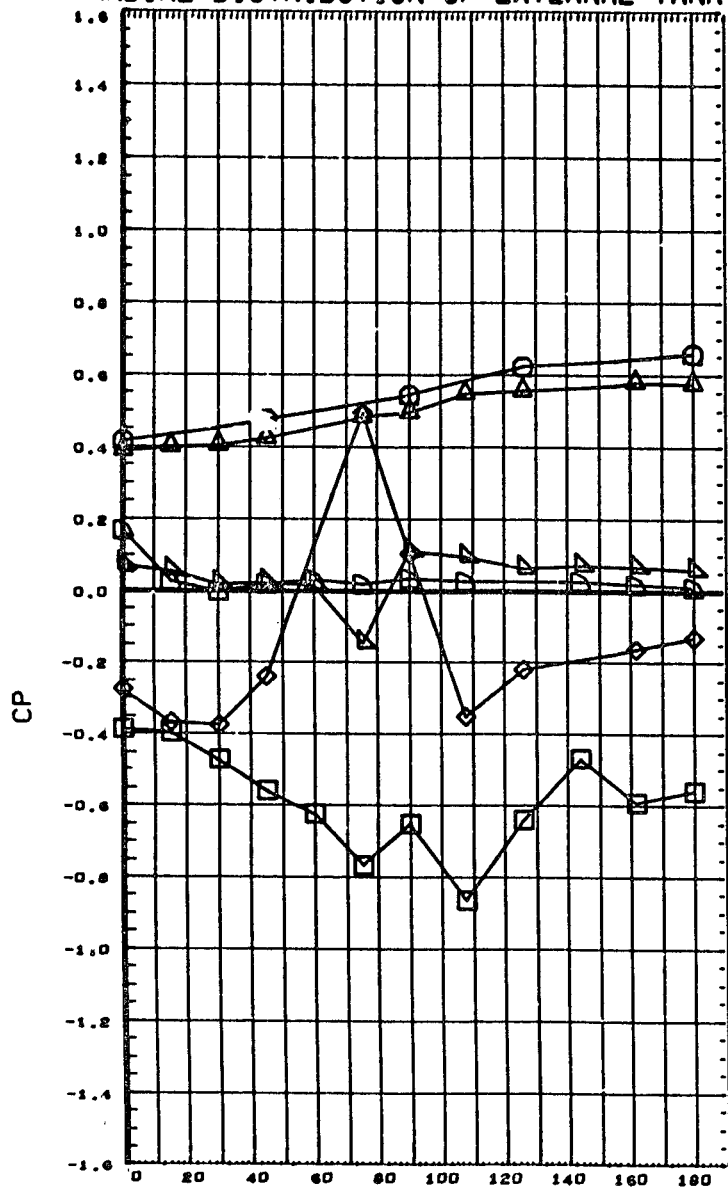


SYMBOL	x/LREF	BETA	MACH
○	0.164	- 10.000	0.950
△	0.361	- 4.000	
◇	0.790		
□	1.068		
×	2.162		
	3.148	REFERENCE FILE	



PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

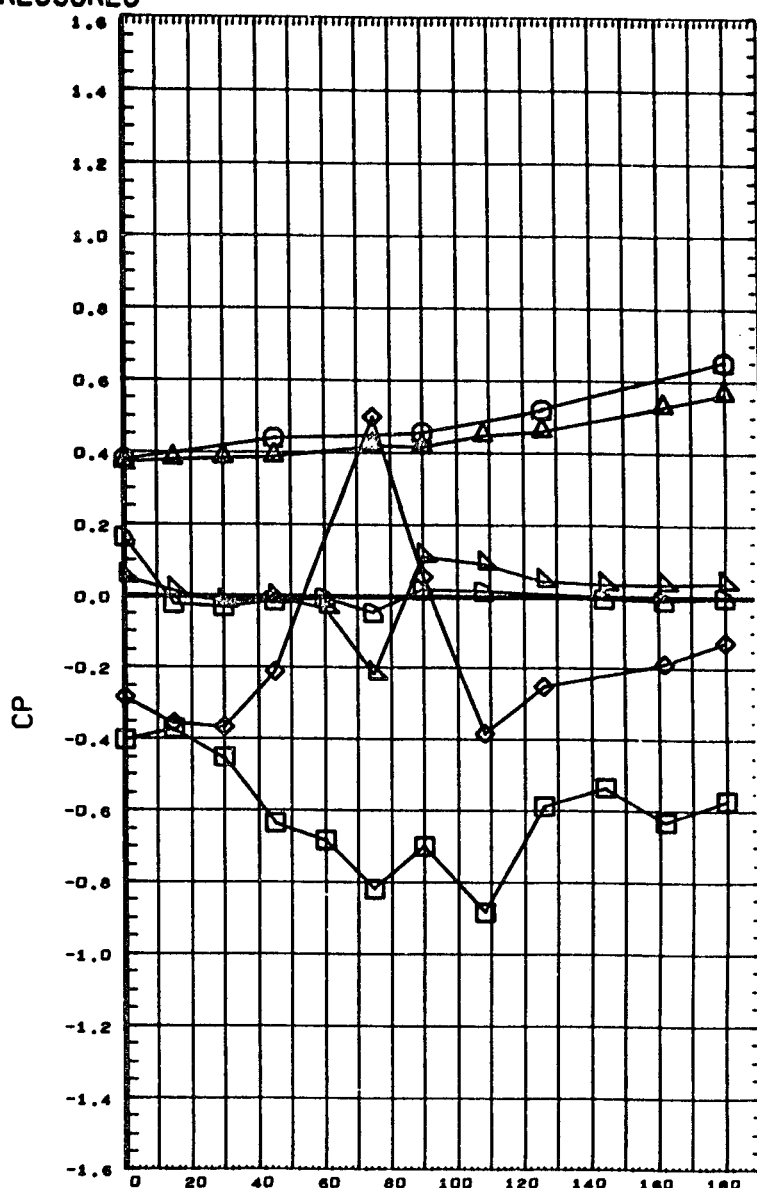
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



PHI

SYMBOL	X/LREF	BETA	MACH
○	0.164	0.000	0.950
△	0.361	4.000	
◇	0.790		
◇	1.068		
◇	2.162		
◇	3.148		

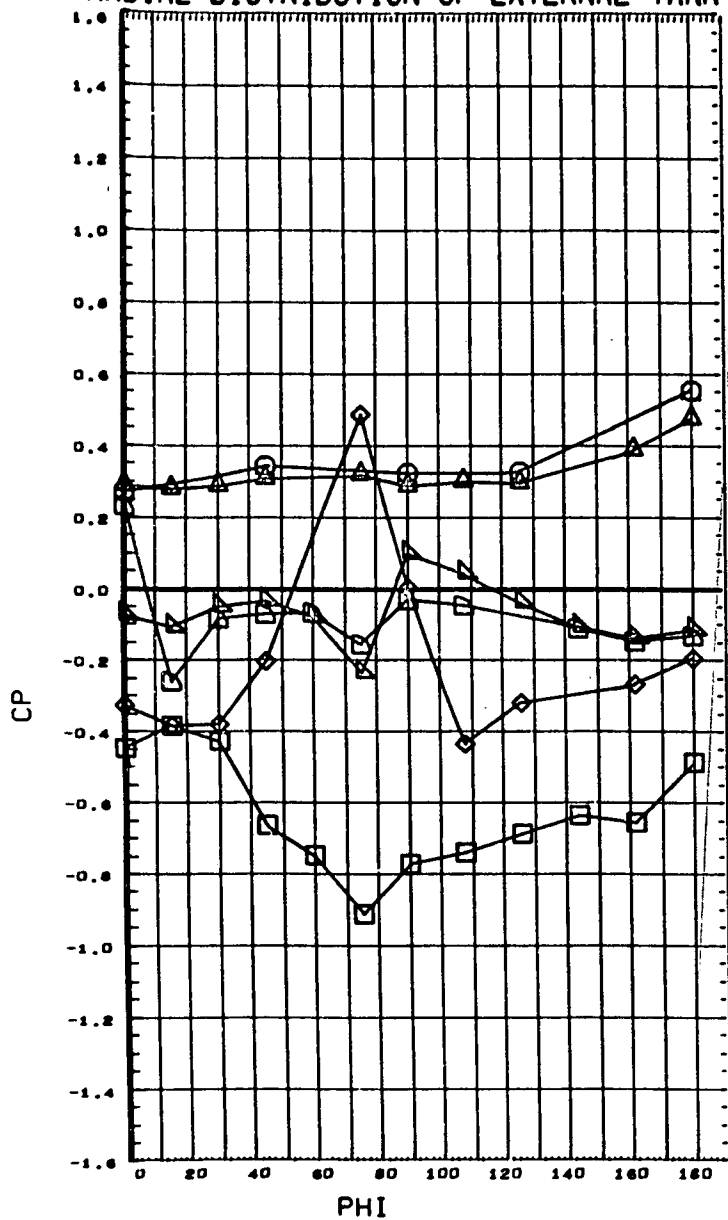
REFERENCE FILE



PHI

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

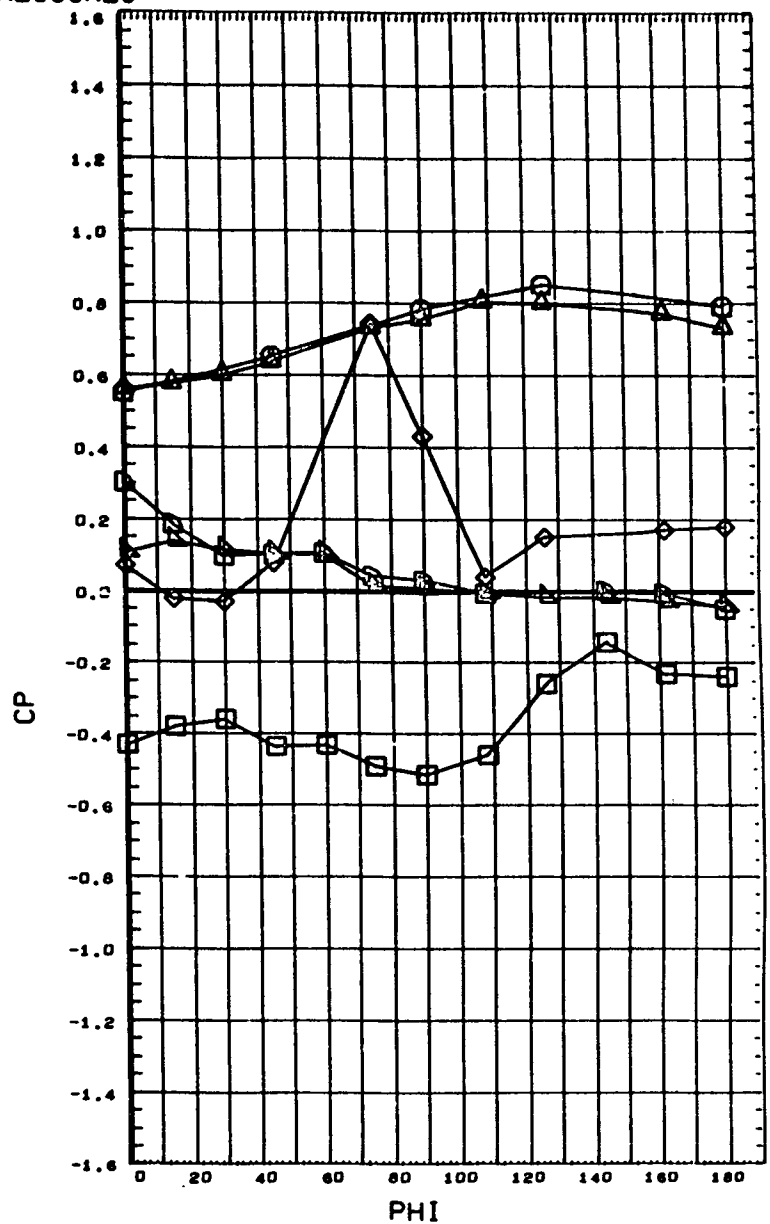
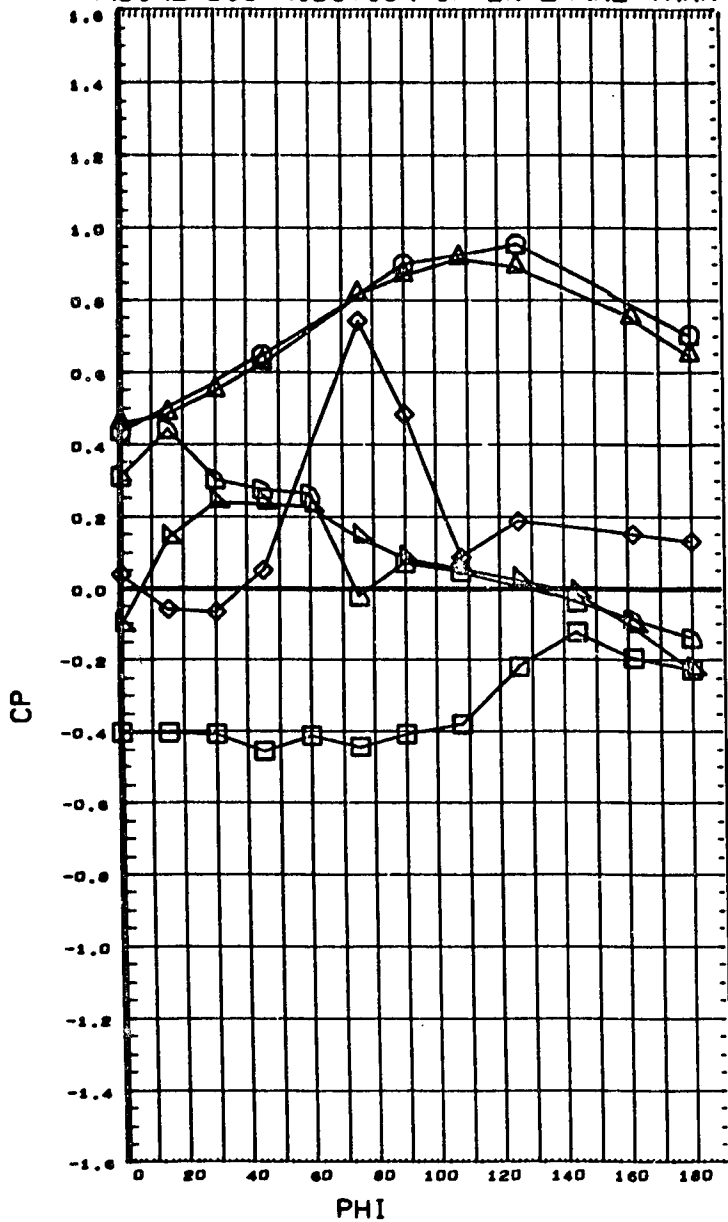
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	BETA	MACH
○	0.164	10.000	0.950
△	0.361		
◇	0.790		
□	1.066		
▽	2.162		
—	3.148	REFERENCE FILE	

PARAMETRIC VALUES
 ALPHA 6.000 ORBINC - 1.500
 SRBGAP 0.025

RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	BETA	MACH
0.164	- 10.000	1.200	
0.361	- 4.000		
0.790			
1.068			
2.162			
3.148			

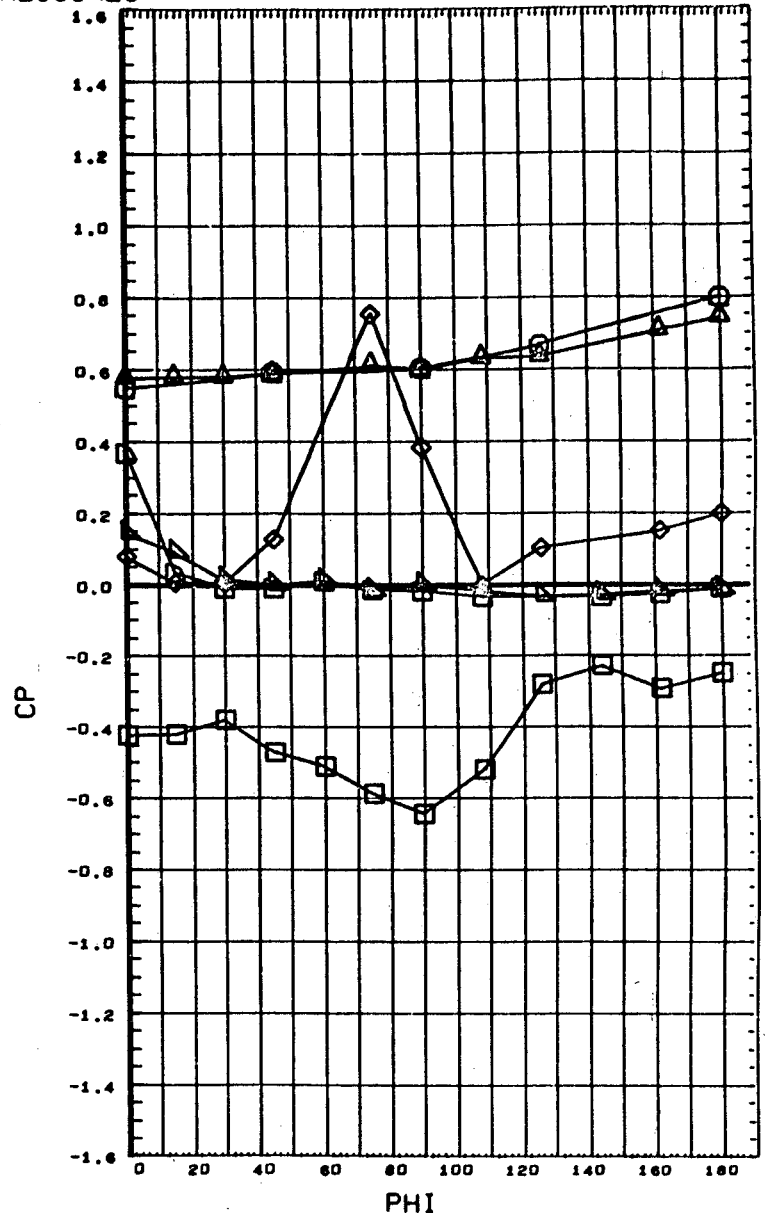
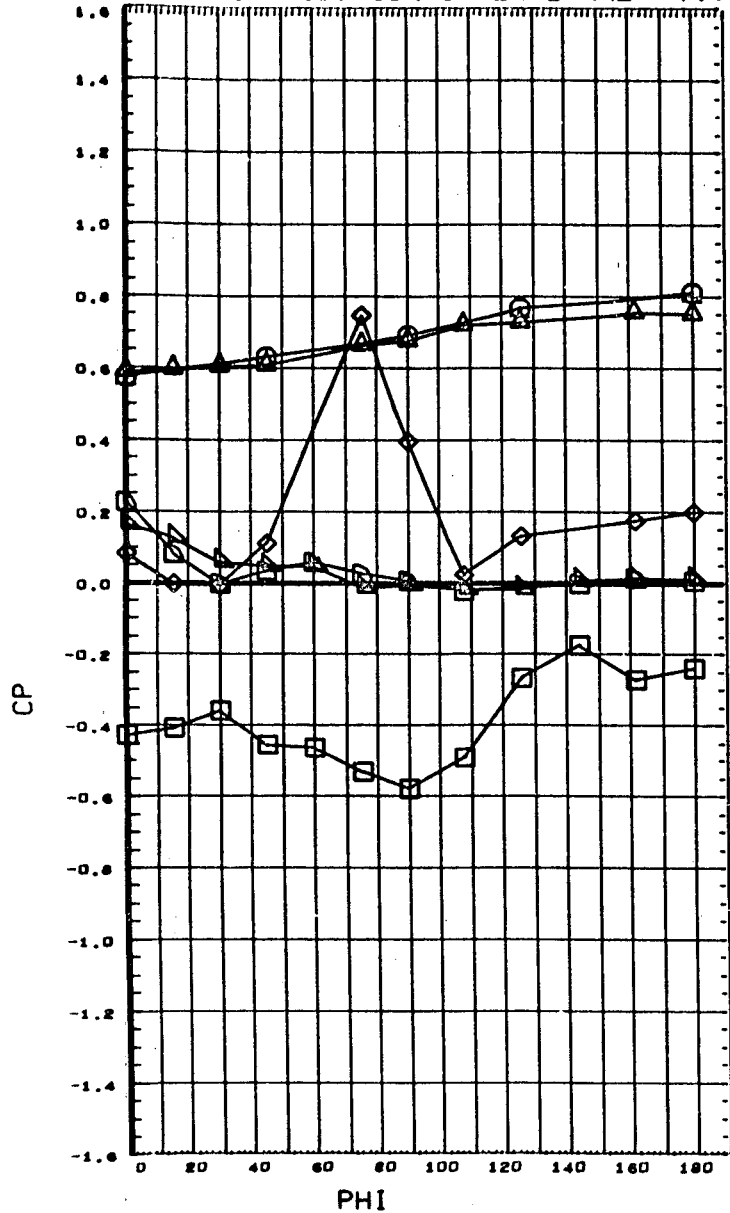
REFERENCE FILE

PARAMETRIC VALUES

ALPHA	6.000	ORBINC	- 1.500
SRBGAP	0.025		

2

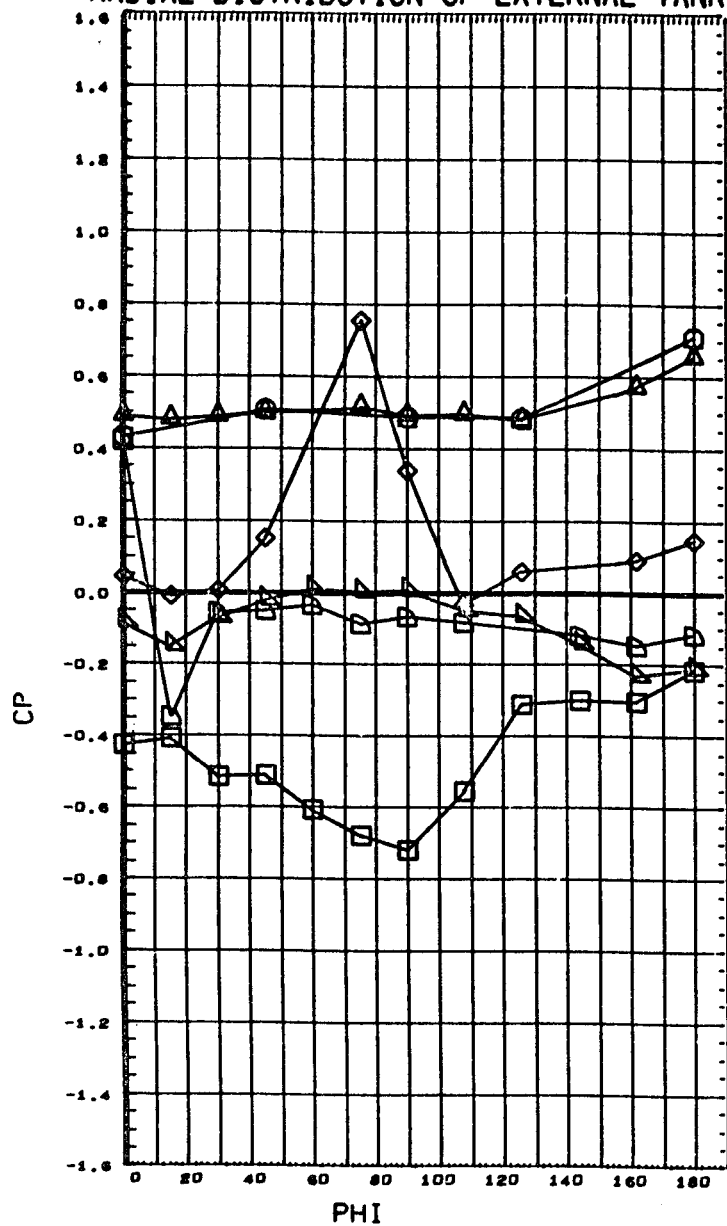
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	BETA	MACH
○	0.164	0.000	1.200
△	0.361	4.000	
□	0.790		
◇	1.060		
×	2.162		
	3.148	REFERENCE FILE	

PARAMETRIC VALUES		
ALPHA	6.000	ORBINC 1.500
SRBGAP	0.025	

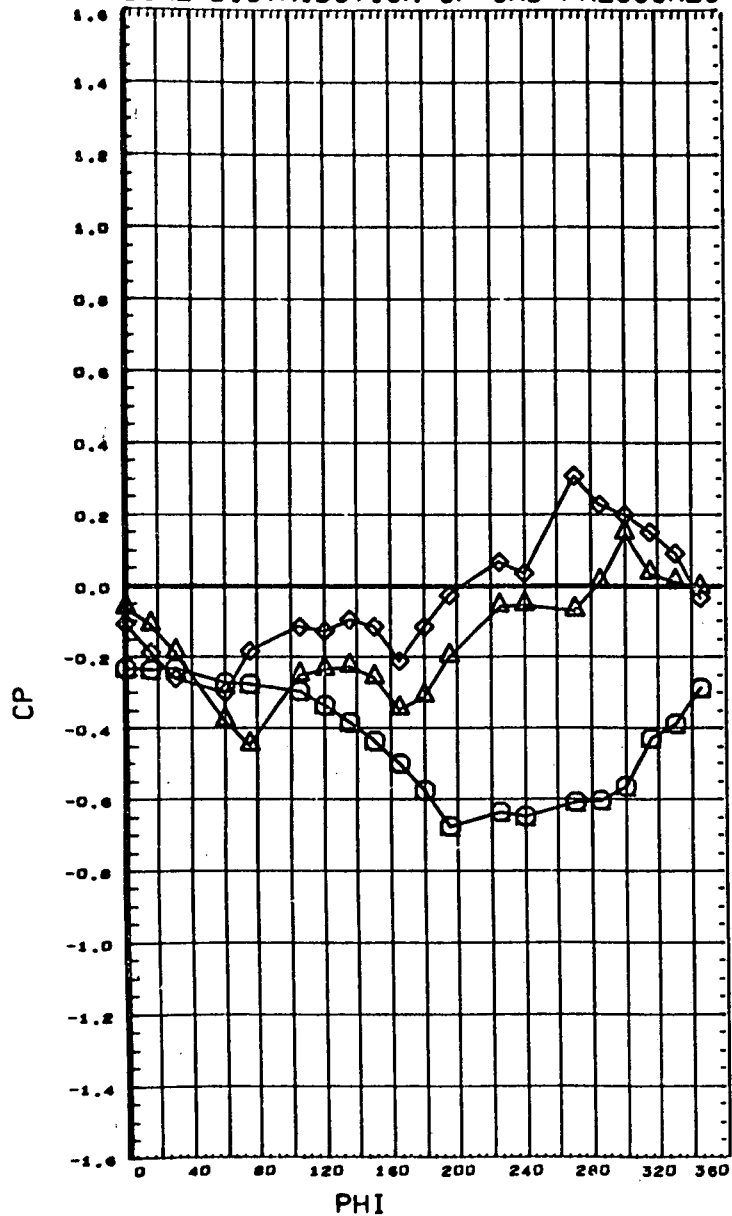
RADIAL DISTRIBUTION OF EXTERNAL TANK PRESSURES



SYMBOL	X/LREF	BETA	MACH
△	0.164	10.000	1.200
◇	0.361		
□	0.790		
◇	1.068		
□	2.162		
◇	3.148	REFERENCE FILE	

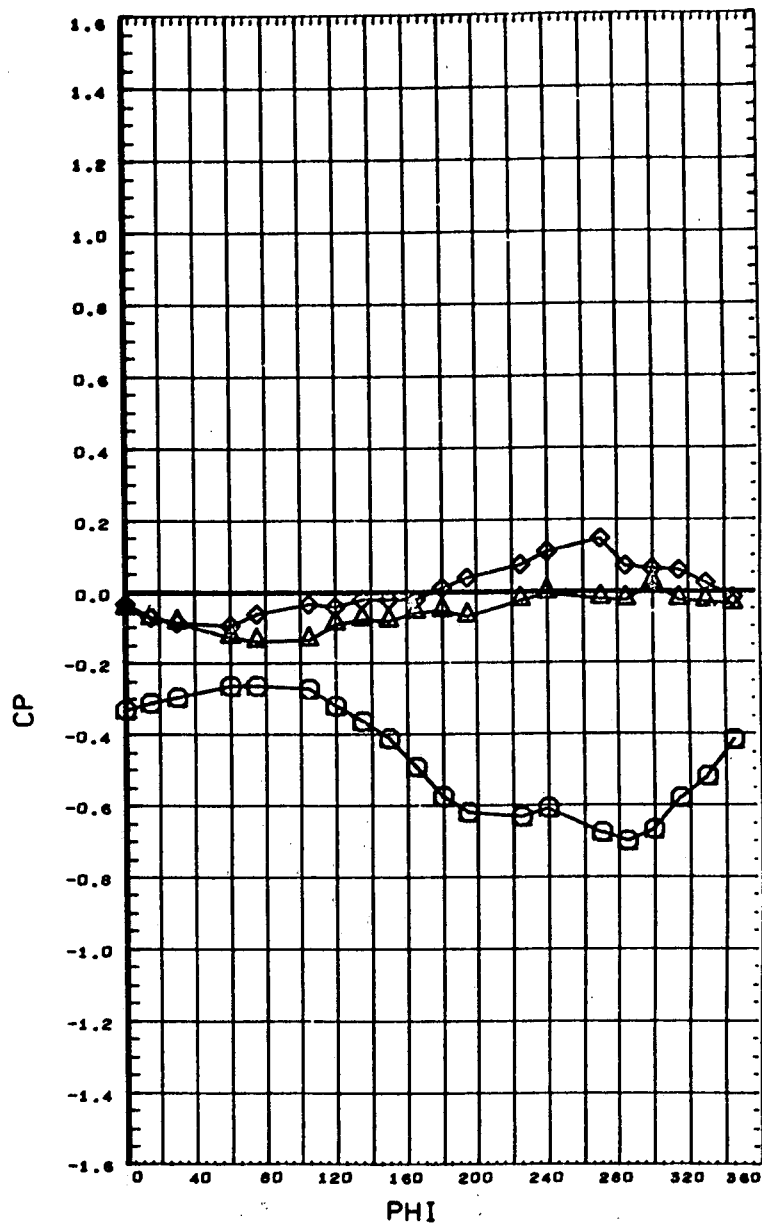
PARAMETRIC VALUES
 ALPHA 6.000 ORBINC - 1.300
 SRBGAP 0.025

RADIAL DISTRIBUTION OF SRB PRESSURES



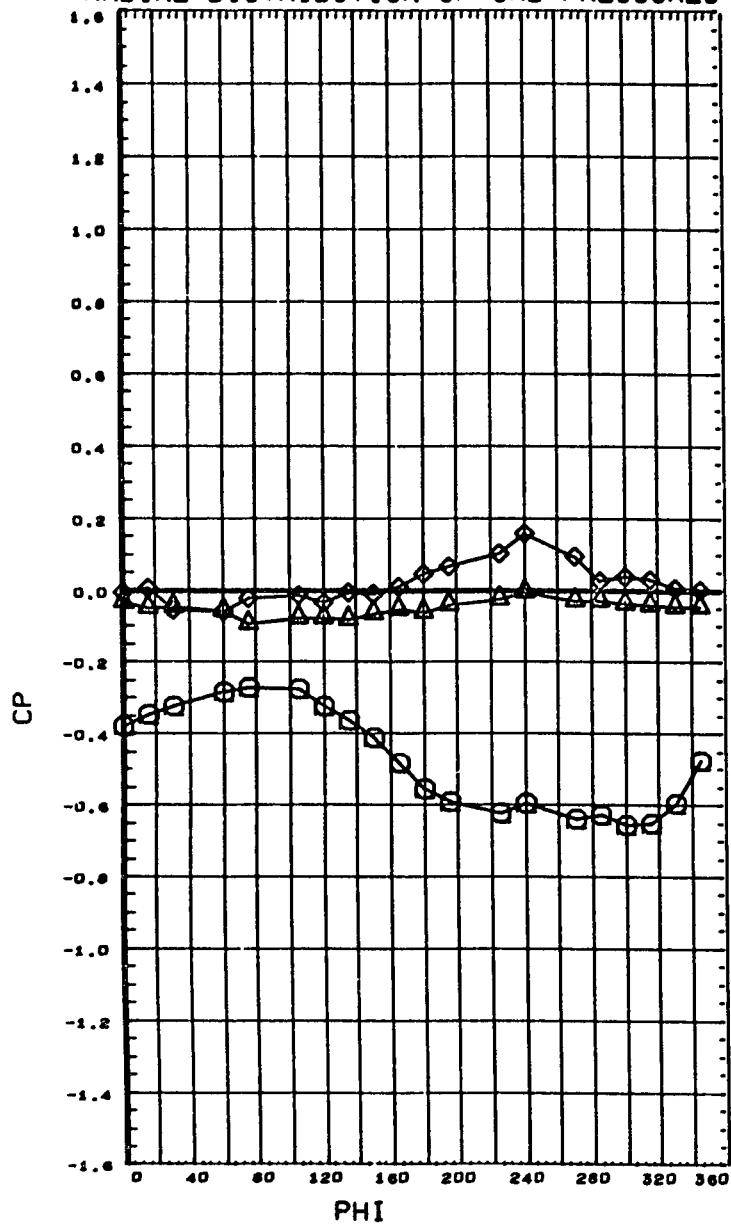
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.200
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



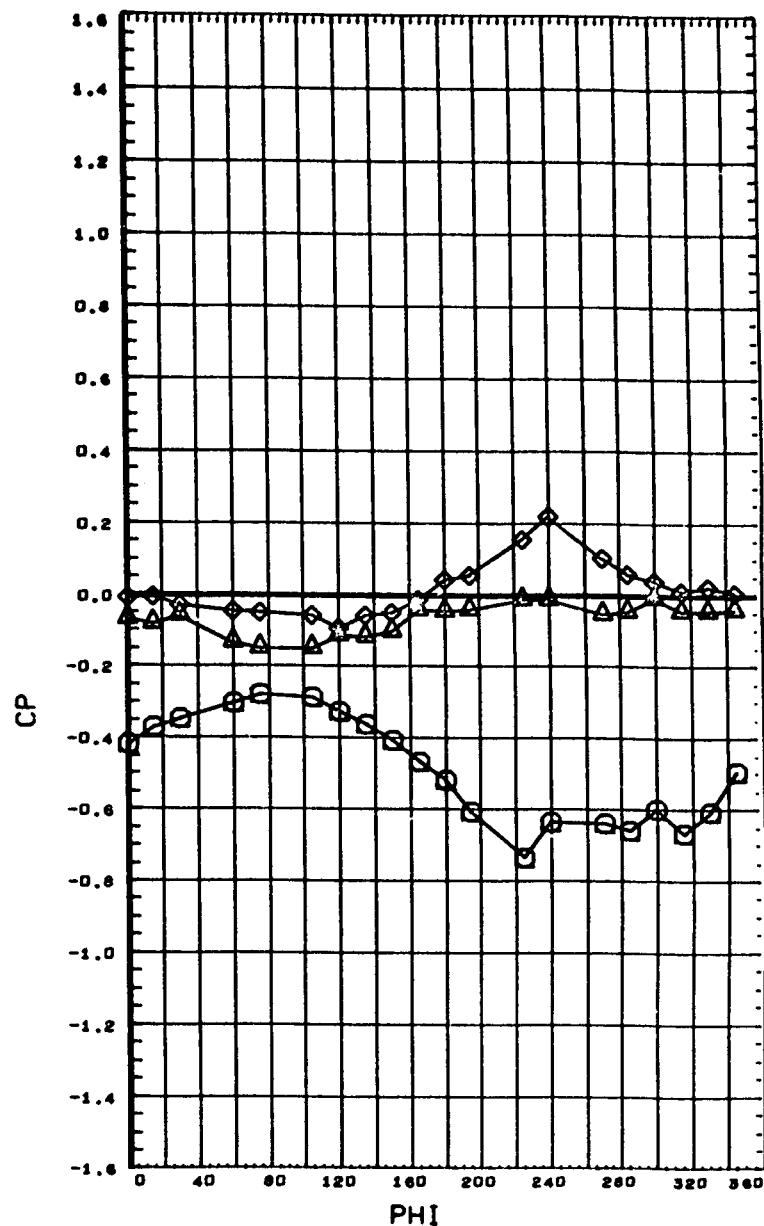
PARAMETRIC VALUES		
BETA	0.000	SRBCAP
		0.025

RADIAL DISTRIBUTION OF SRB PRESSURES



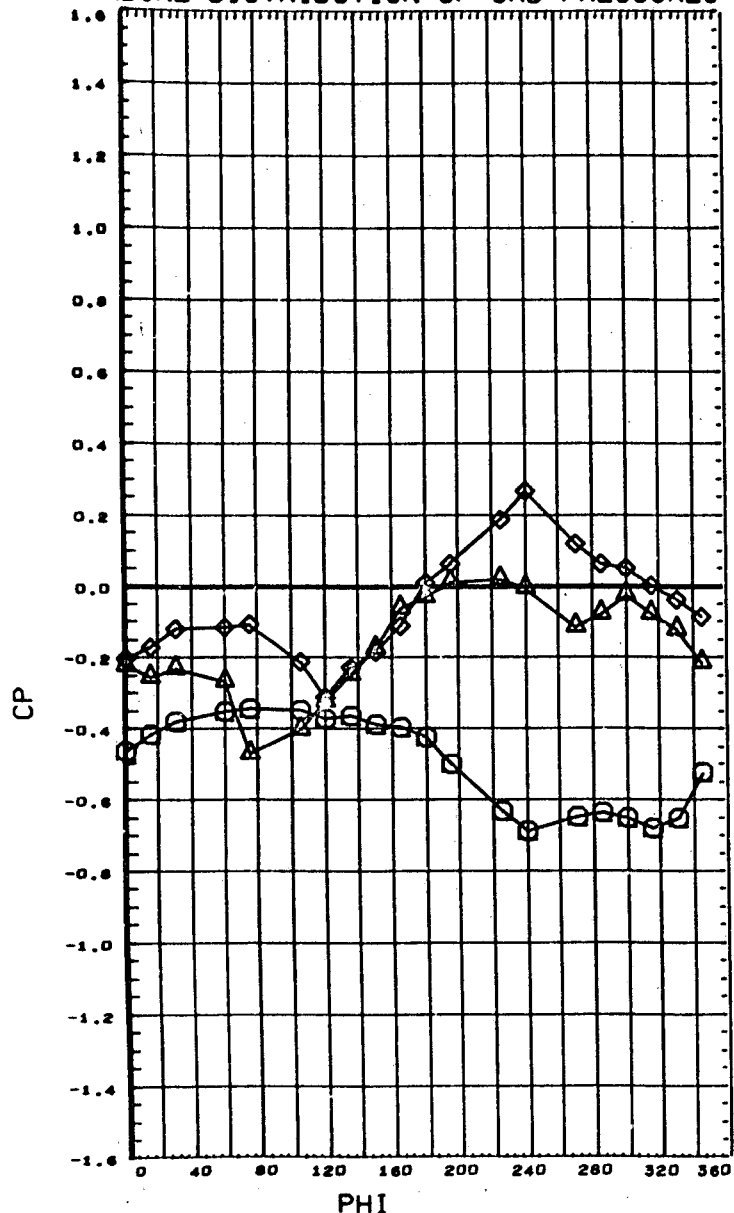
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	0.000	1.200
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES		
BETA	0.000	SRBCAP 0.025

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.200
△	2.529		
◇	3.512		

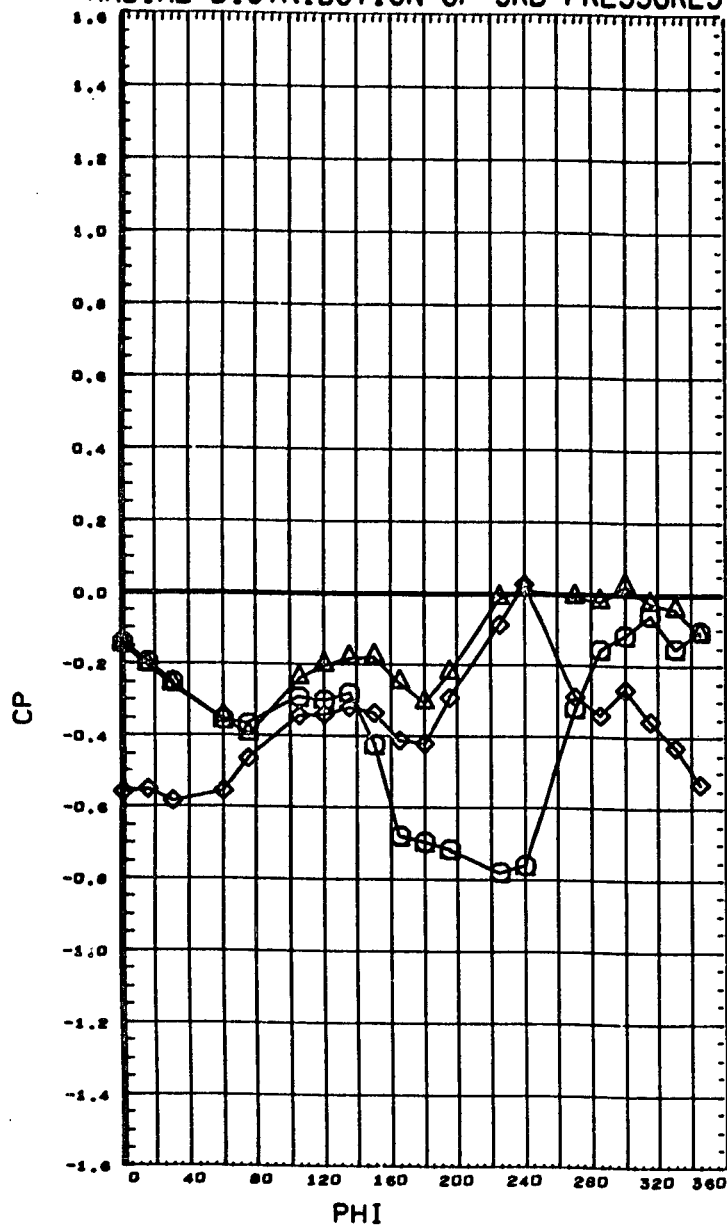
PARAMETRIC VALUES
 BETA 0.000 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1 (R705SM)

PAGE 675

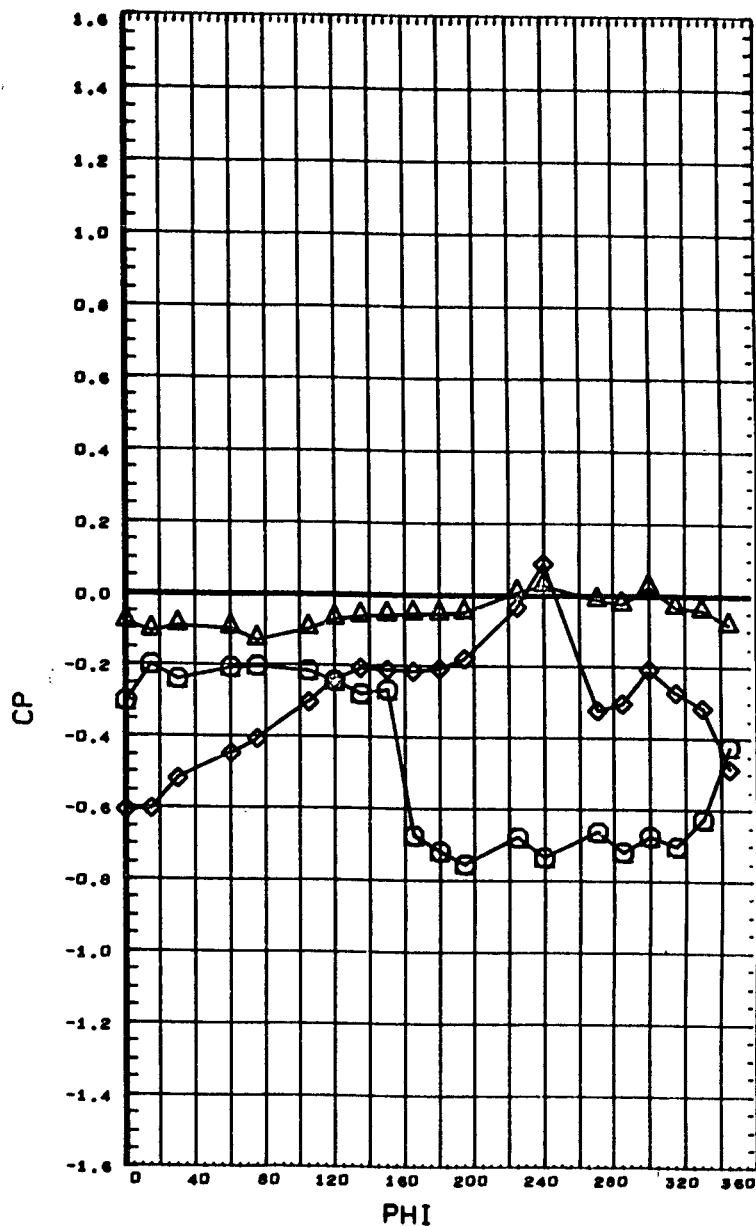
RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	- 10.000	0.800
△	2.329	- 4.000	
◇	3.512		

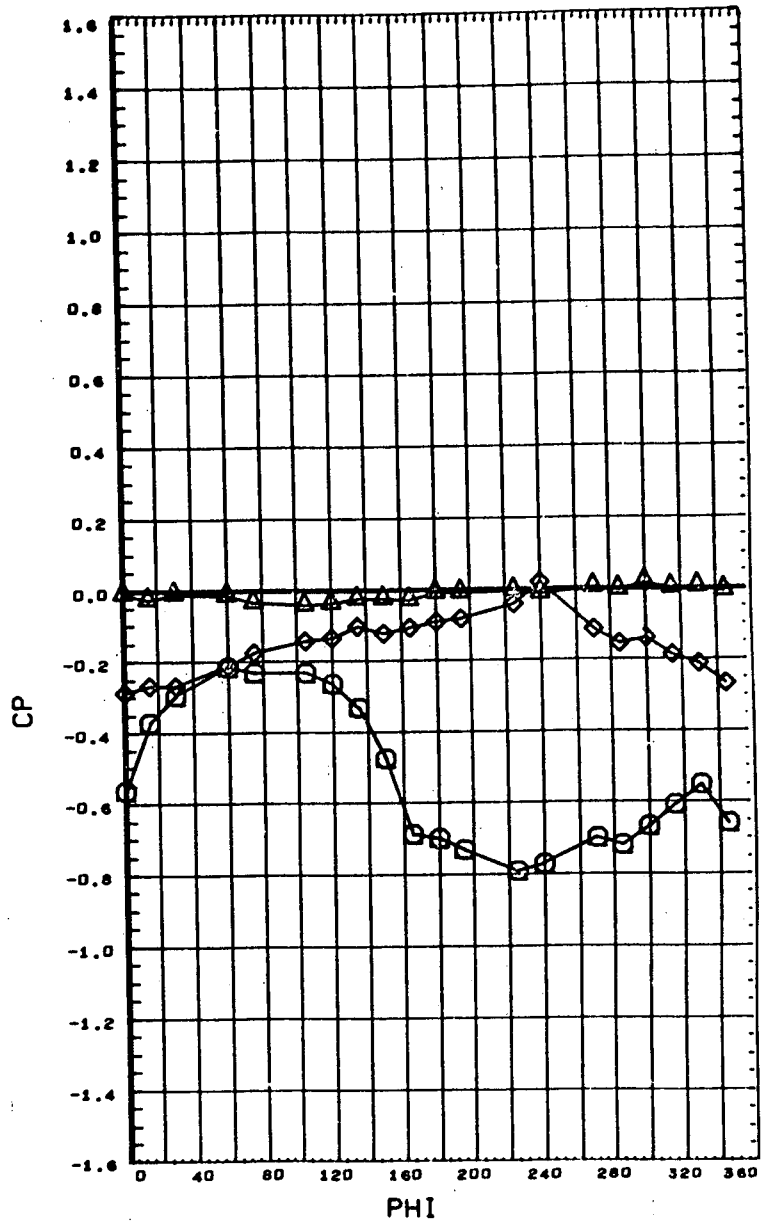
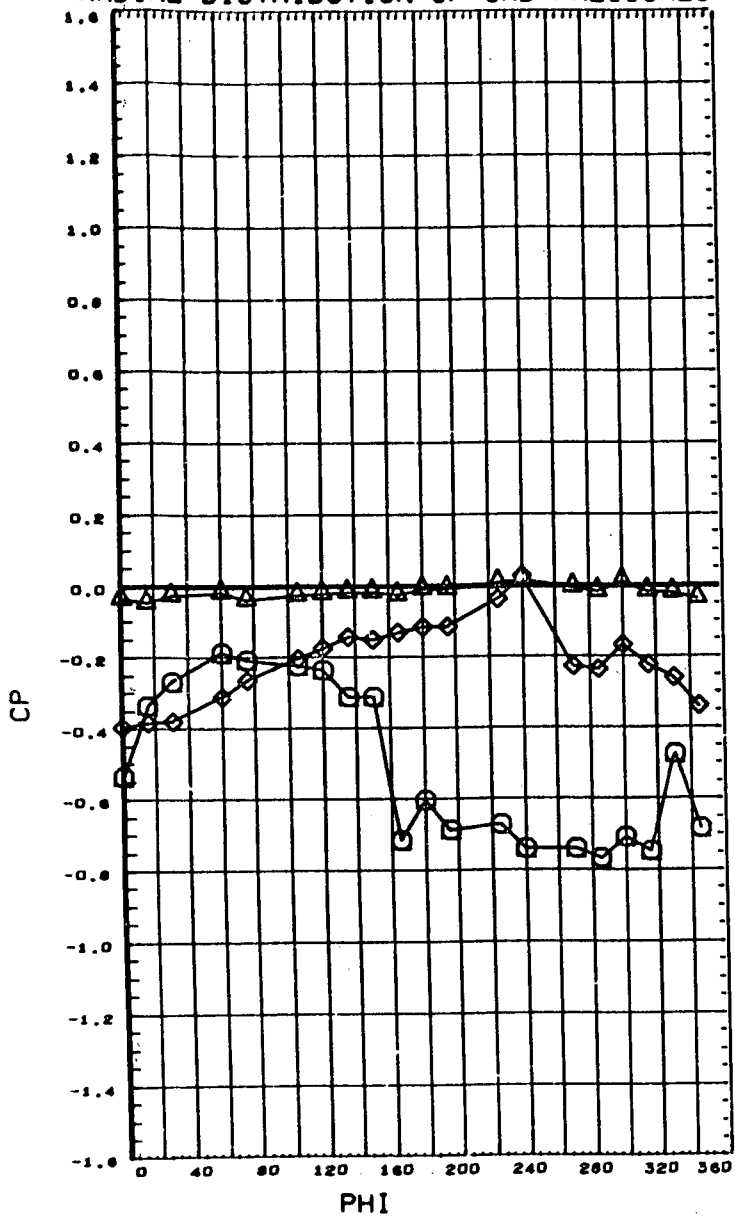
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)



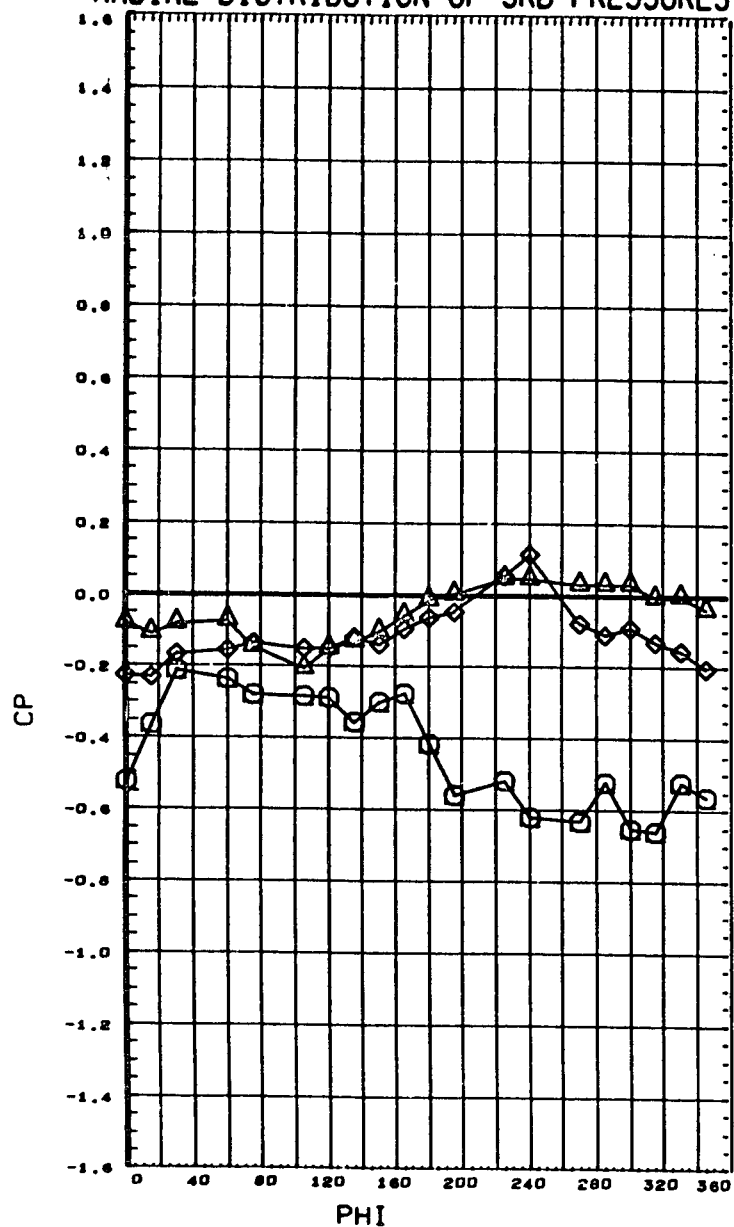
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	0.800
△	2.329		
◇	3.912		

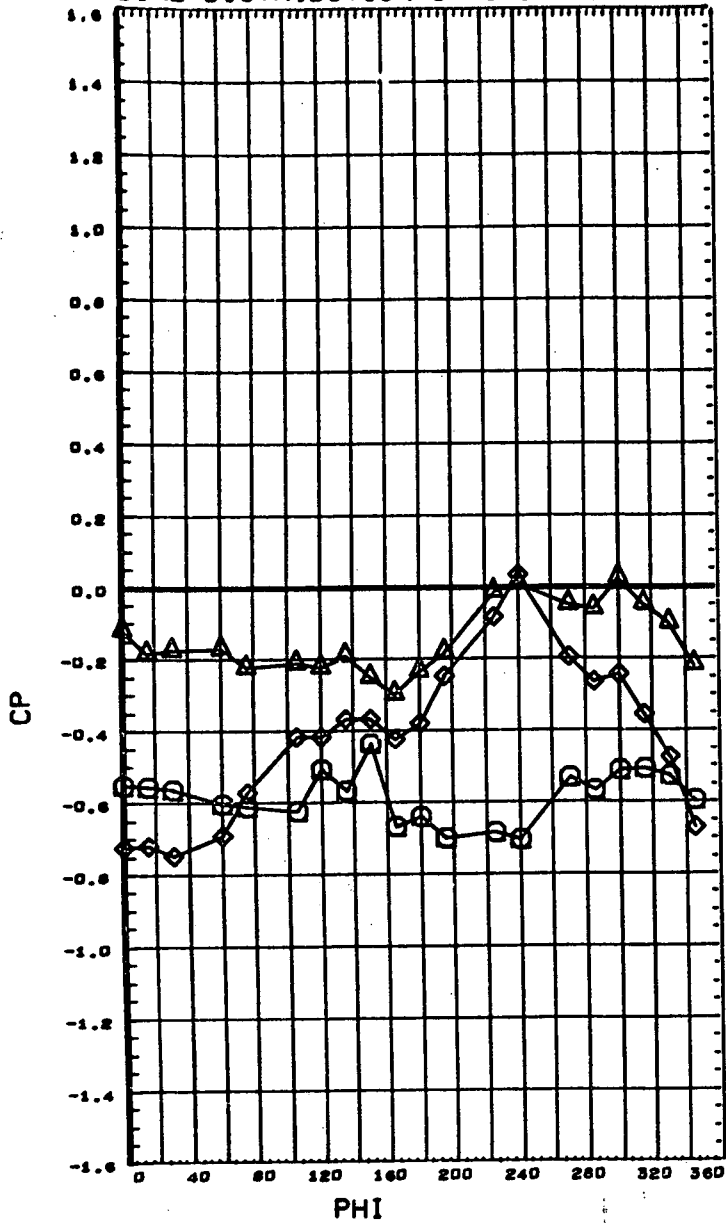
PARAMETRIC VALUES			
BETA	0.000	ORBINC	- 1.500
SRBGAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

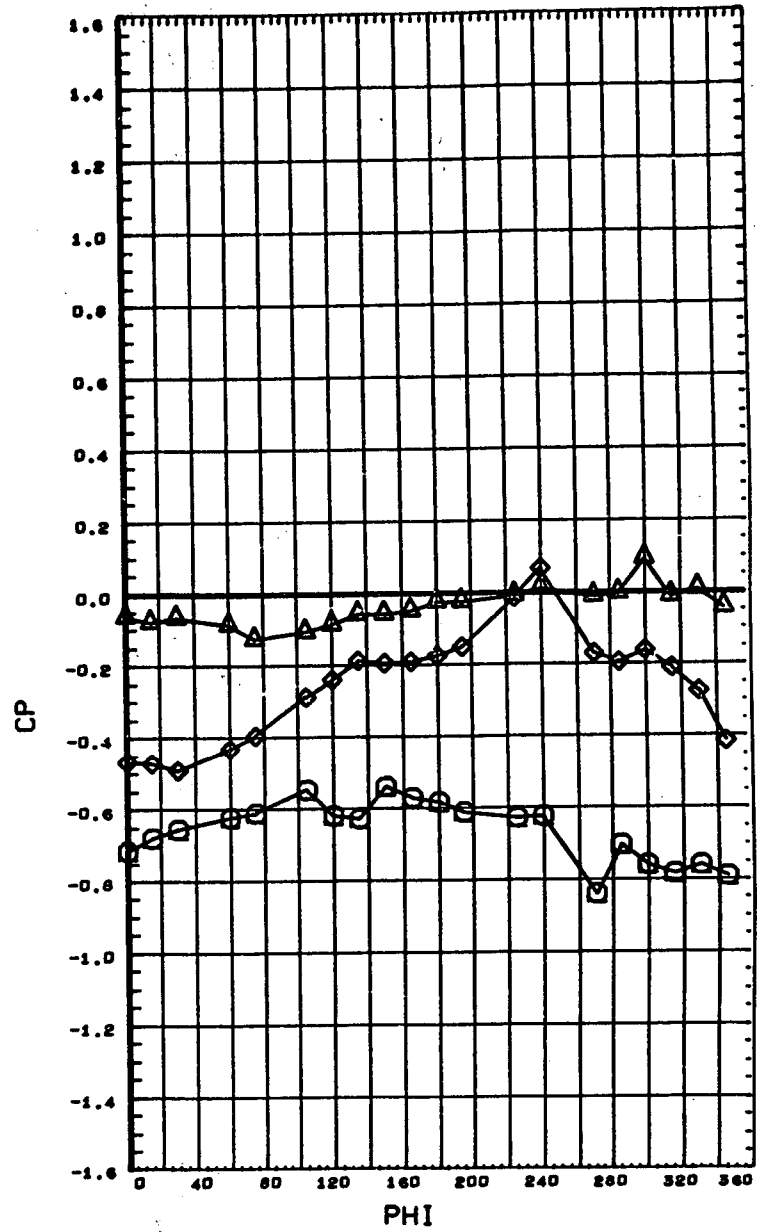
PAGE 678

RADIAL DISTRIBUTION OF SRB PRESSURES



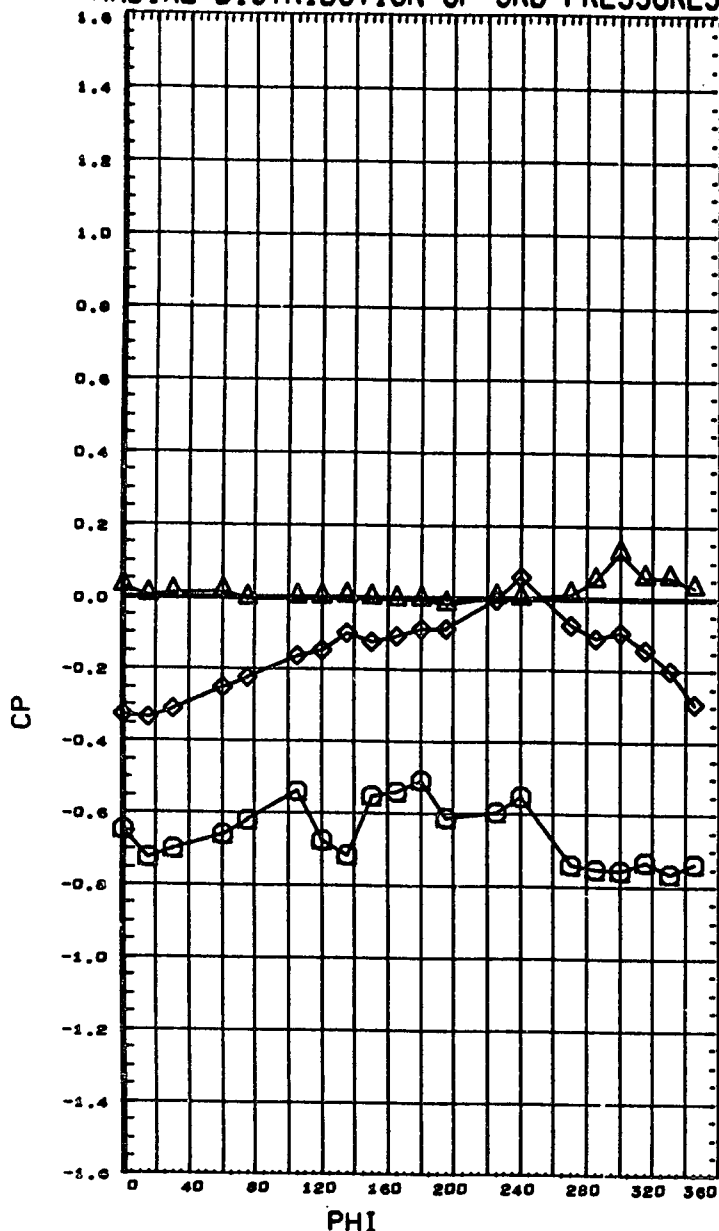
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	0.950
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



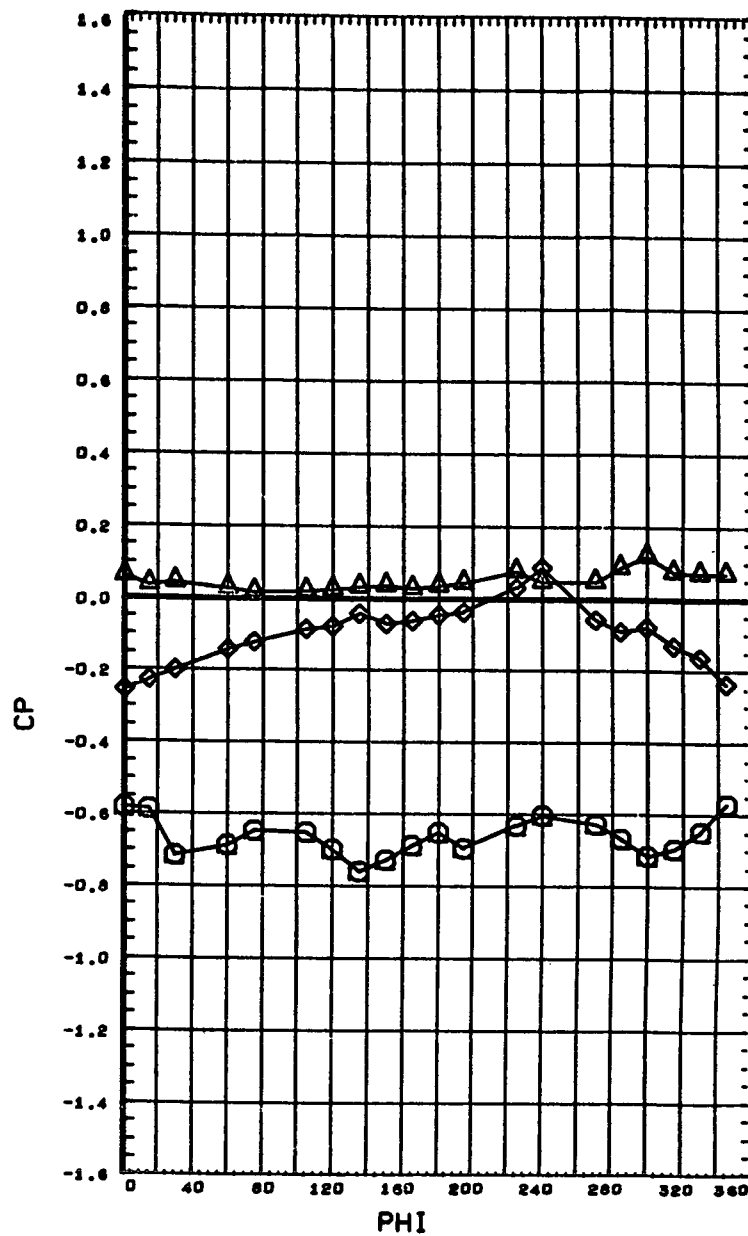
PARAMETRIC VALUES			
BETA	0.000	ORBINC	- 1.500
SRBGAP	0.025		

RADIAL DISTRIBUTION OF SRB PRESSURES



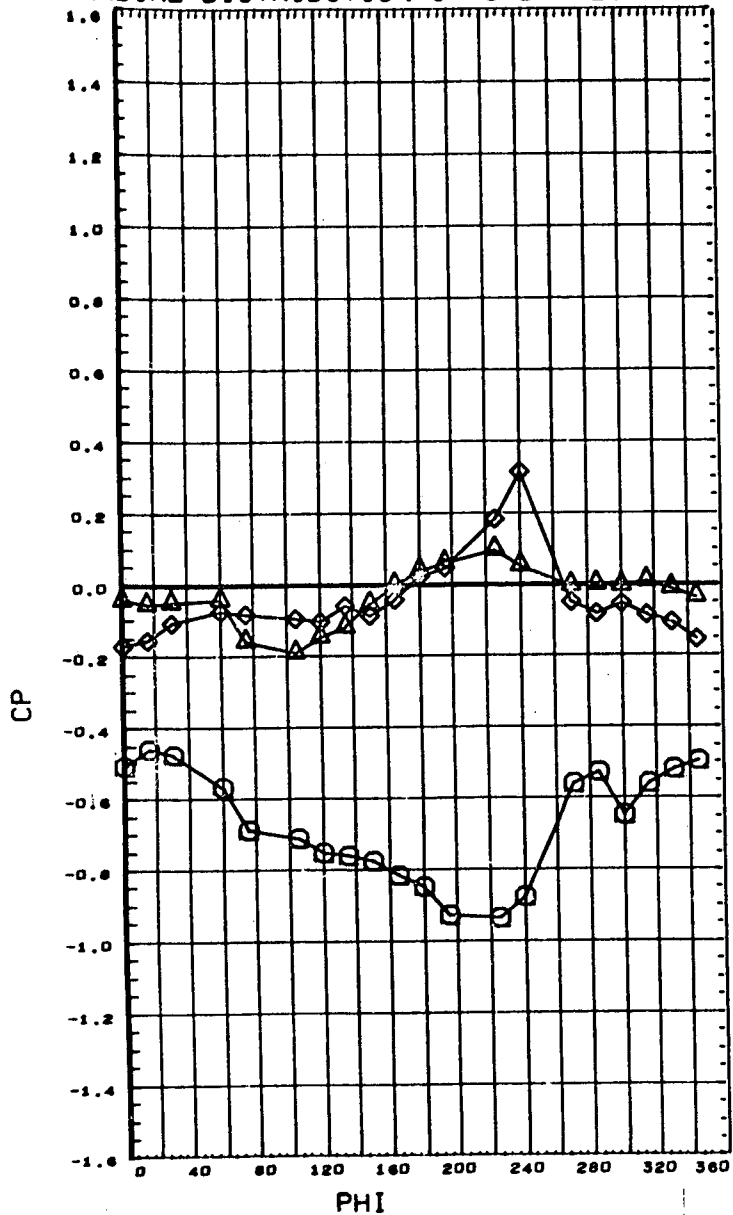
SYMBOL	X/LREF	ALPHA	MACH
○	0.996	0.000	0.950
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	0.950
△	2.329		
◇	3.512		

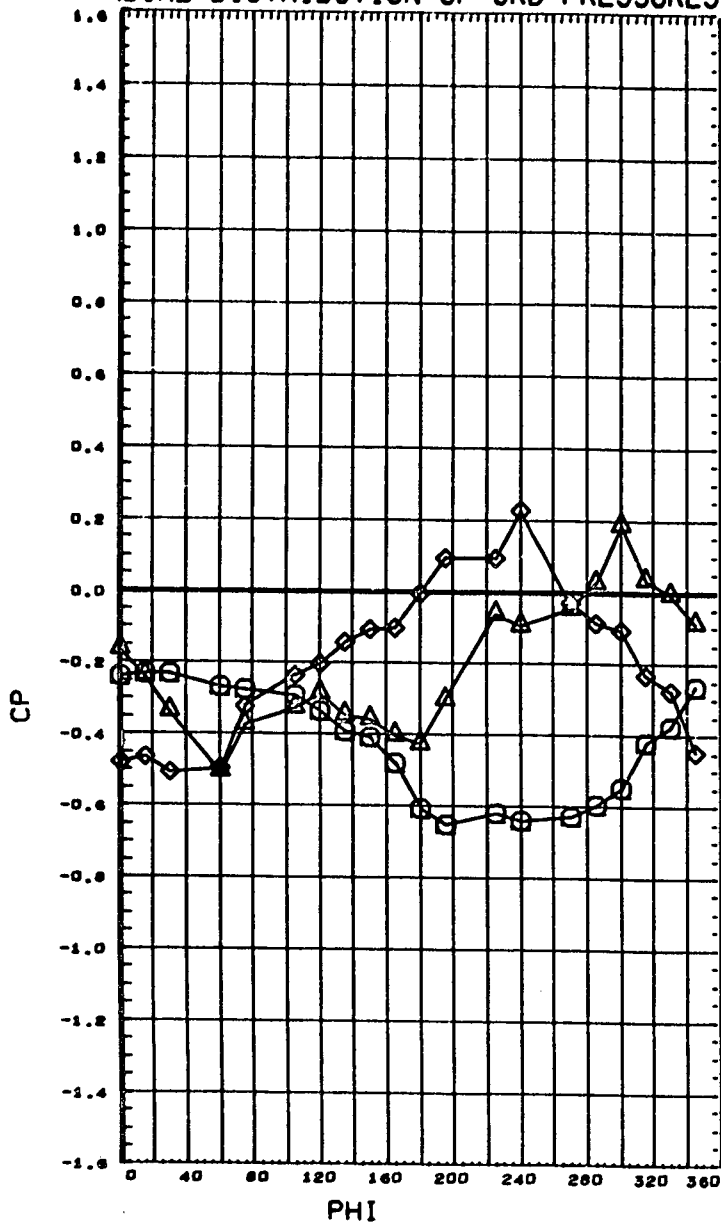
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

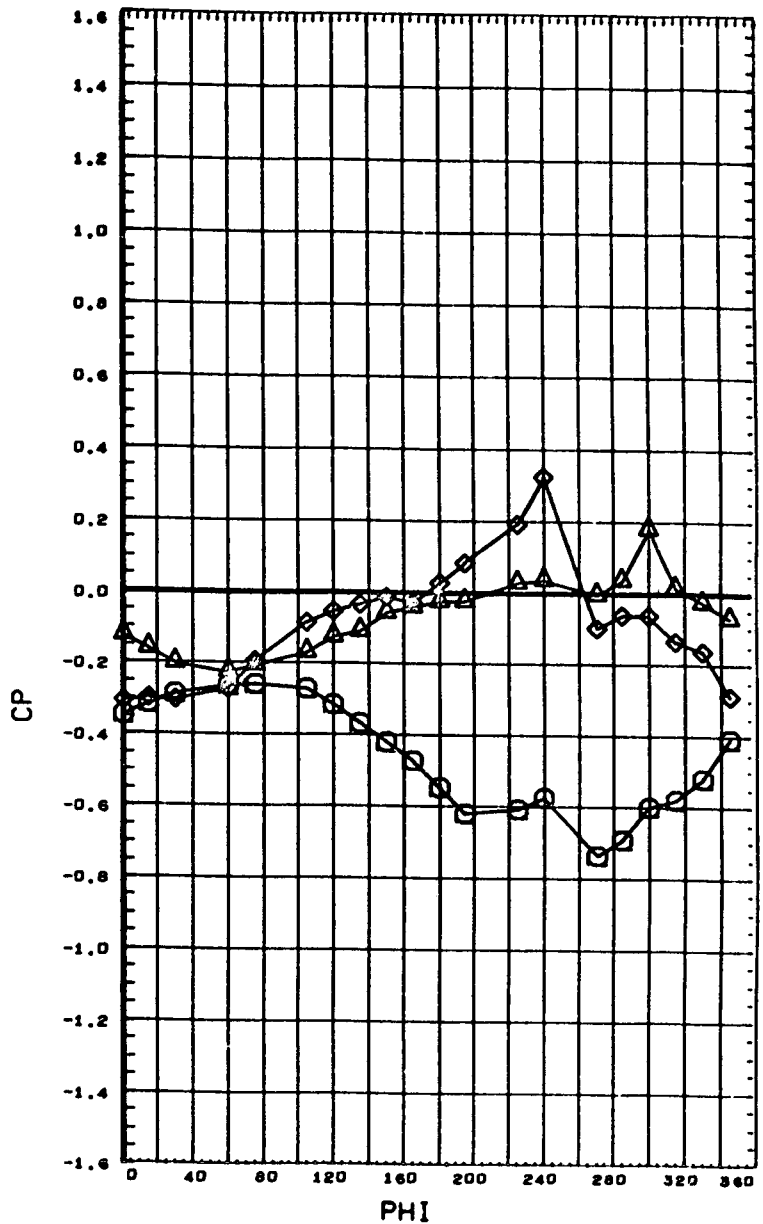
MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 681

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	- 10.000	1.200
△	2.329	- 4.000	
◇	3.512		



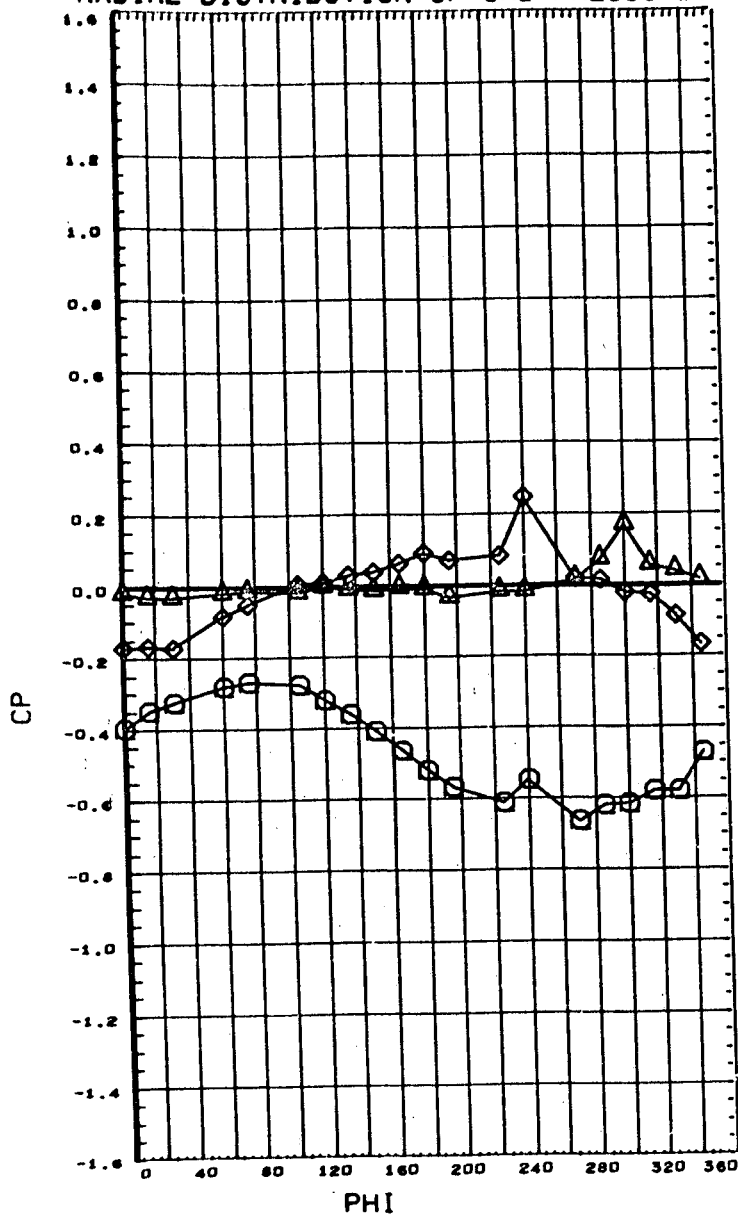
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

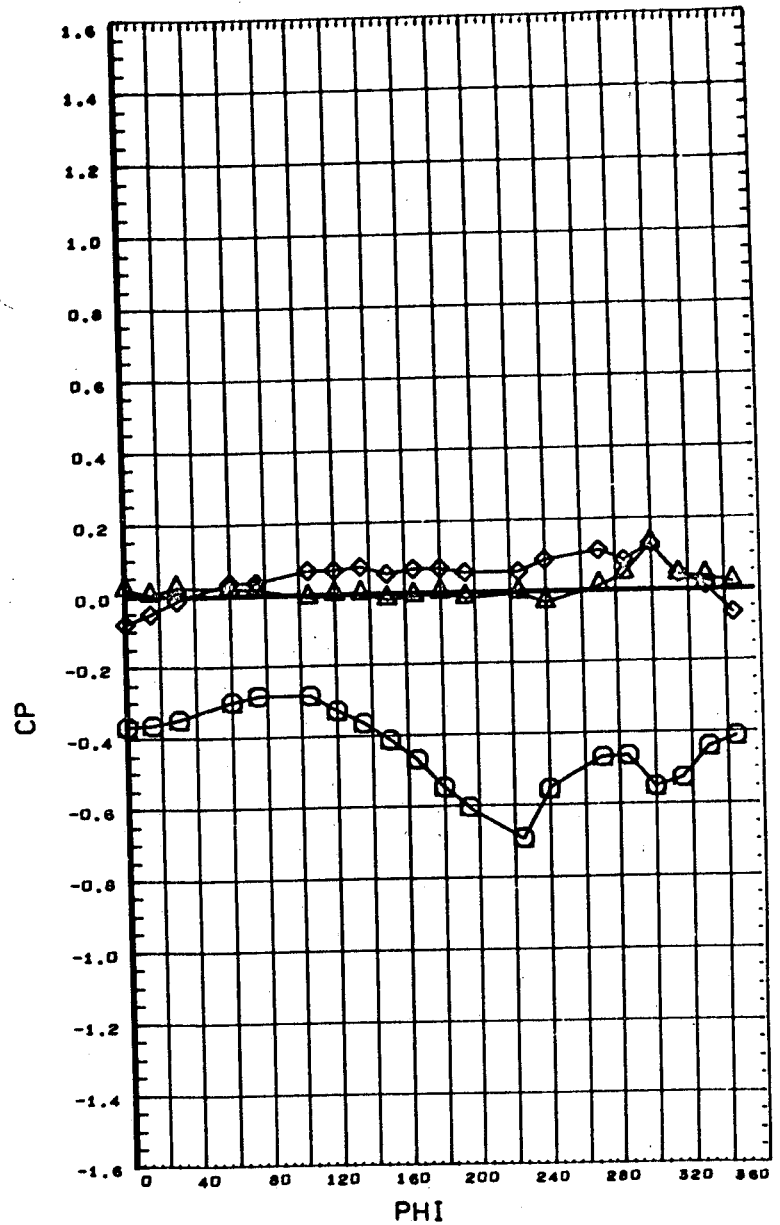
PAGE 682

RADIAL DISTRIBUTION OF SRB PRESSURES



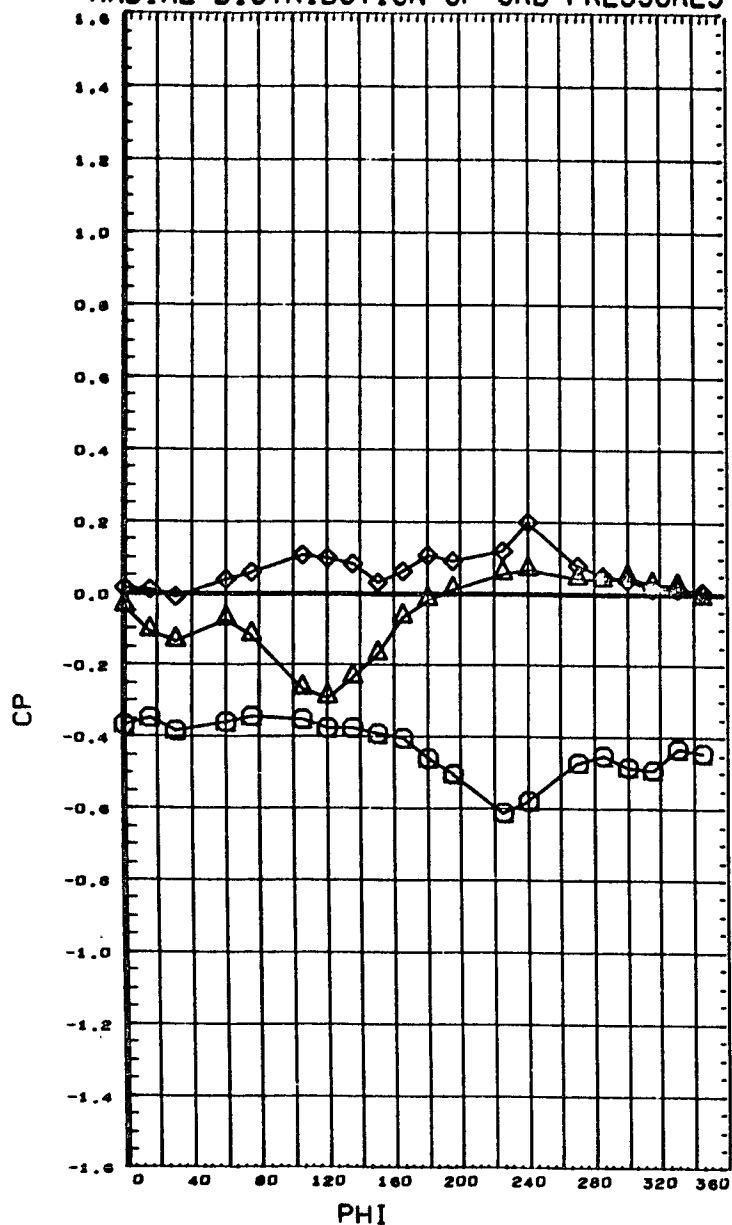
SYMBOL	x/LREF	ALPHA	MACH
○	0.298	0.000	1.200
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.200
△	2.329		
◇	3.512		

PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBCAP	0.025	

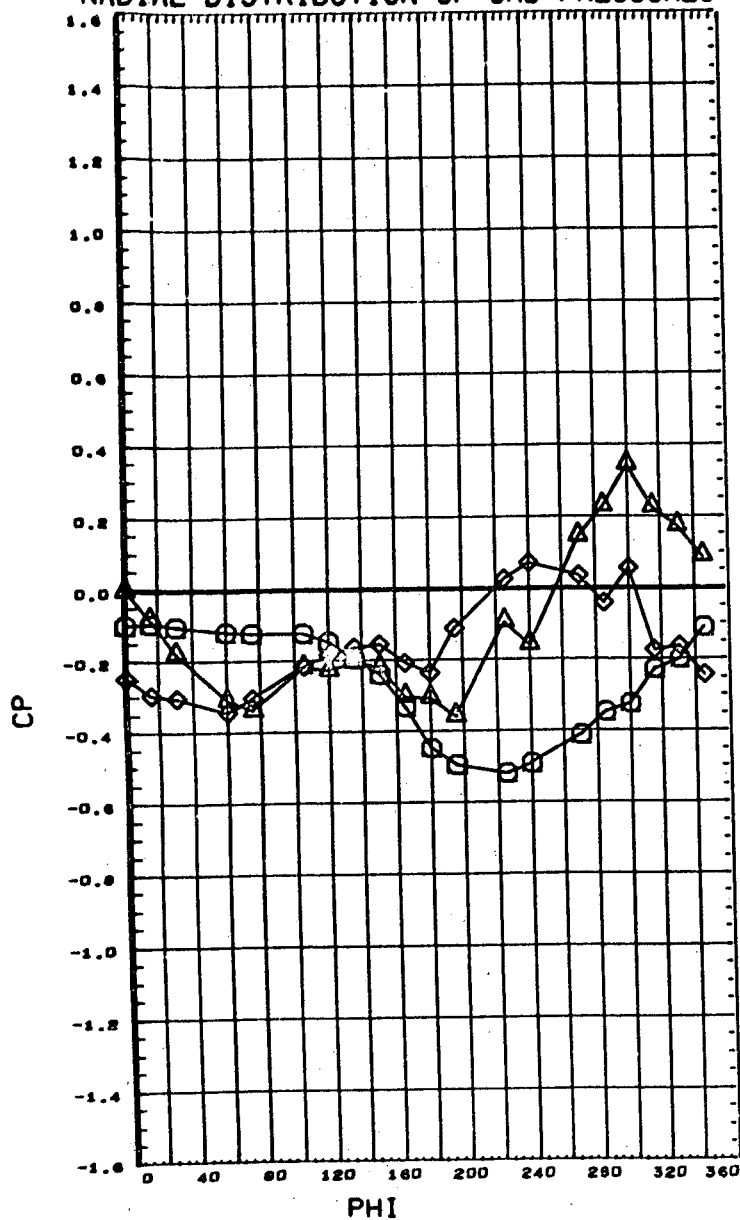
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

PAGE 684

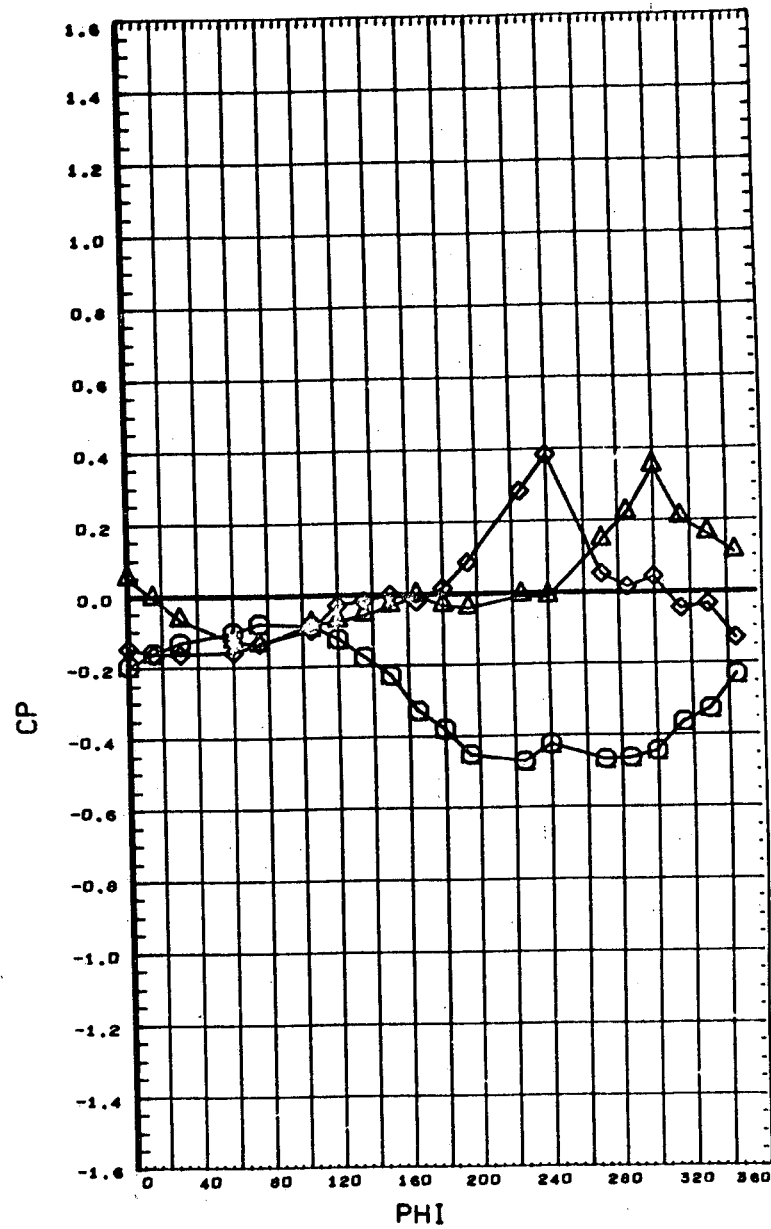
7

RADIAL DISTRIBUTION OF SRB PRESSURES



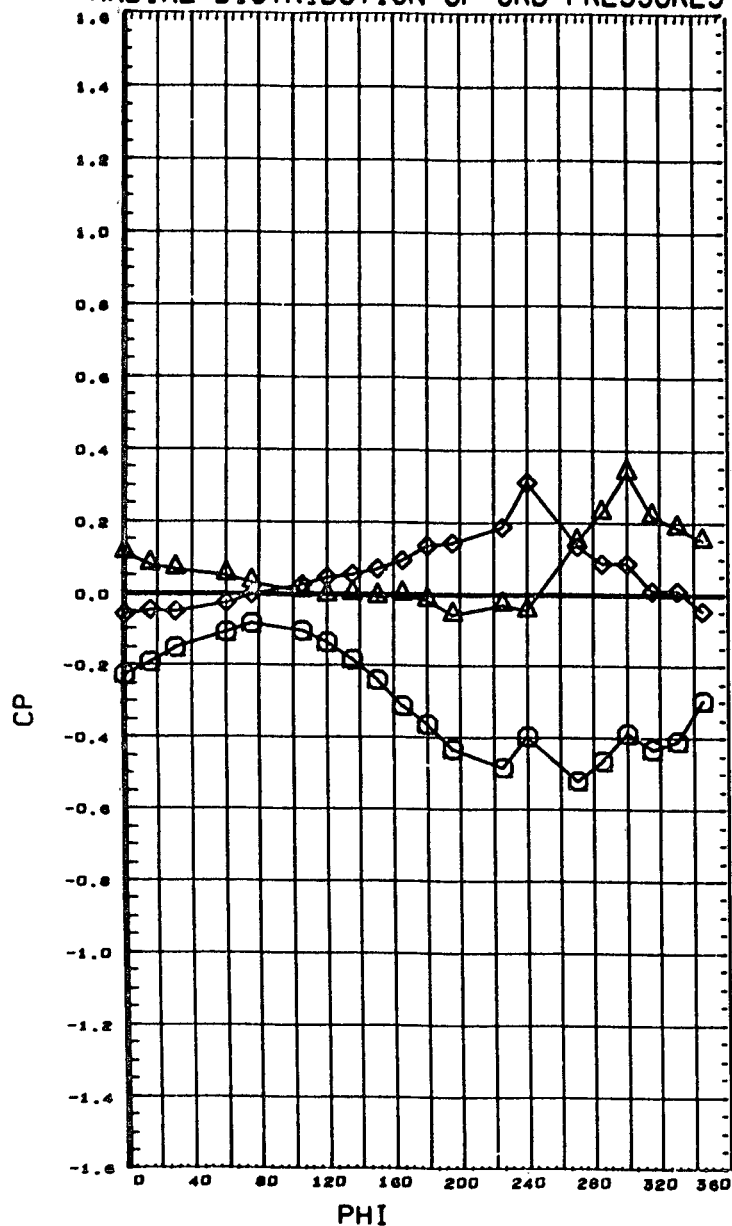
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.460
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



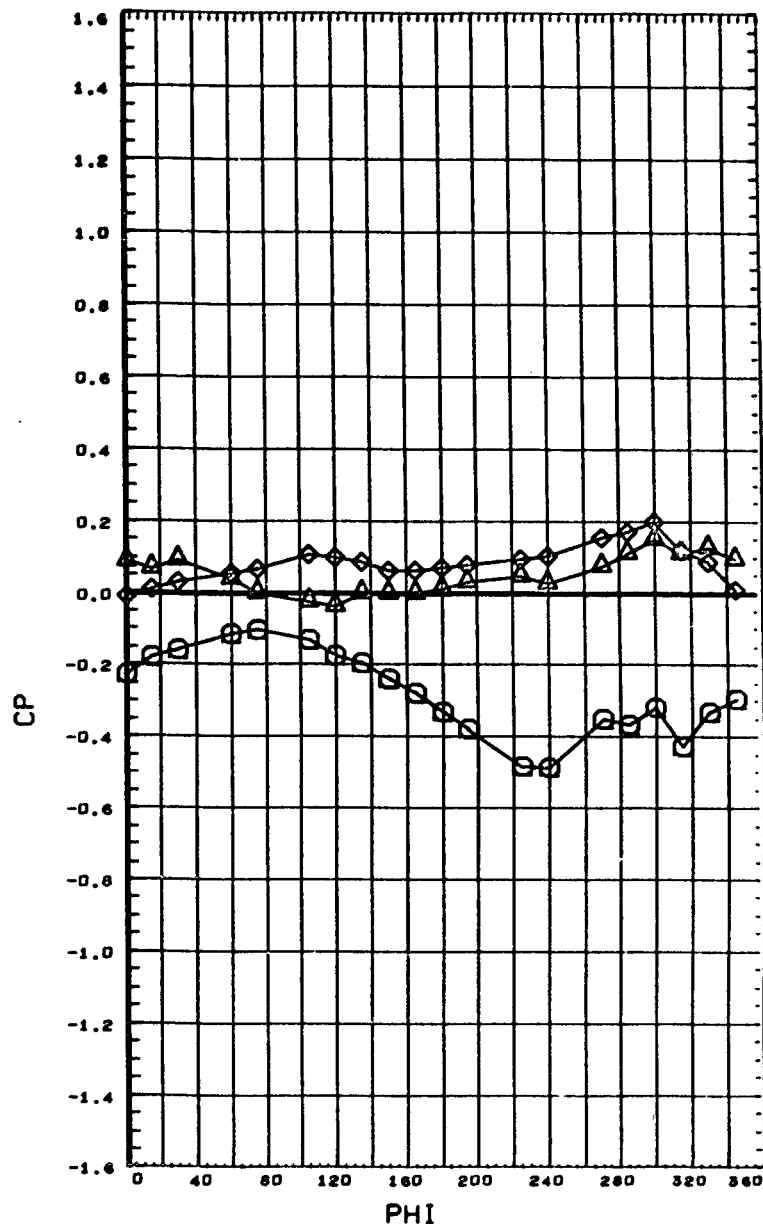
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



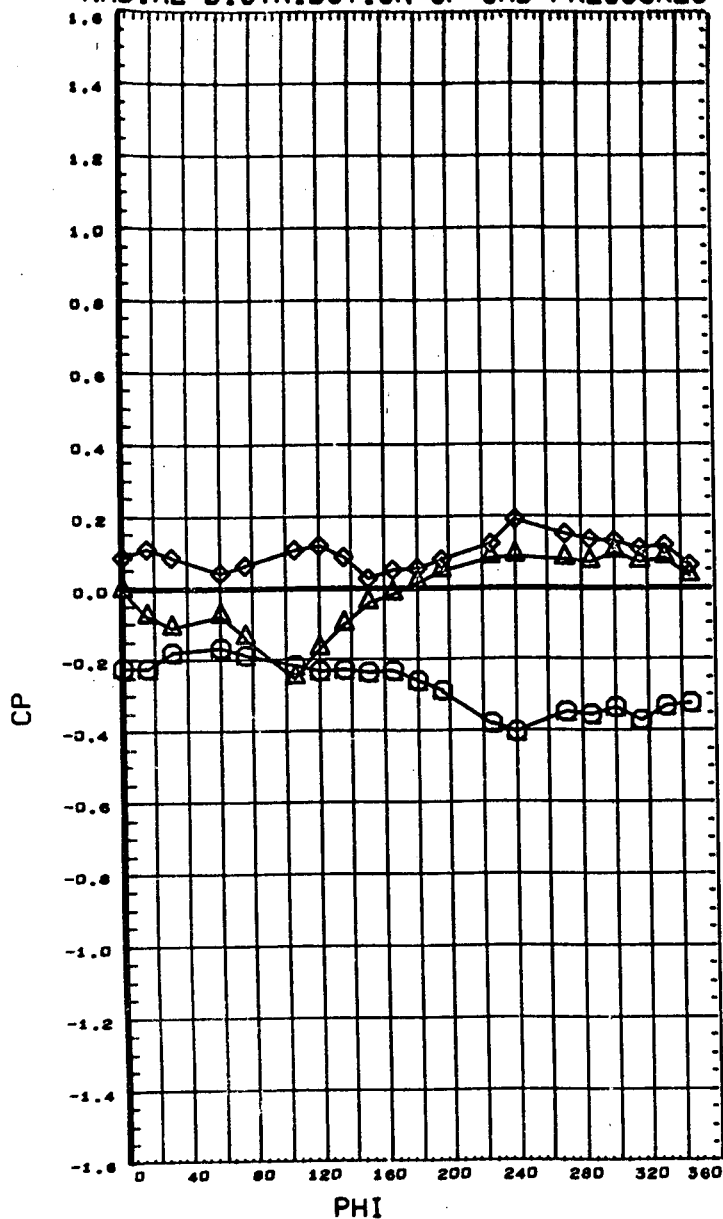
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	0.000	1.460
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES			
BETA	0.000	ORBINC	- 1.500
SRBGAP	0.025		

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.460
△	2.329		
◇	3.512		

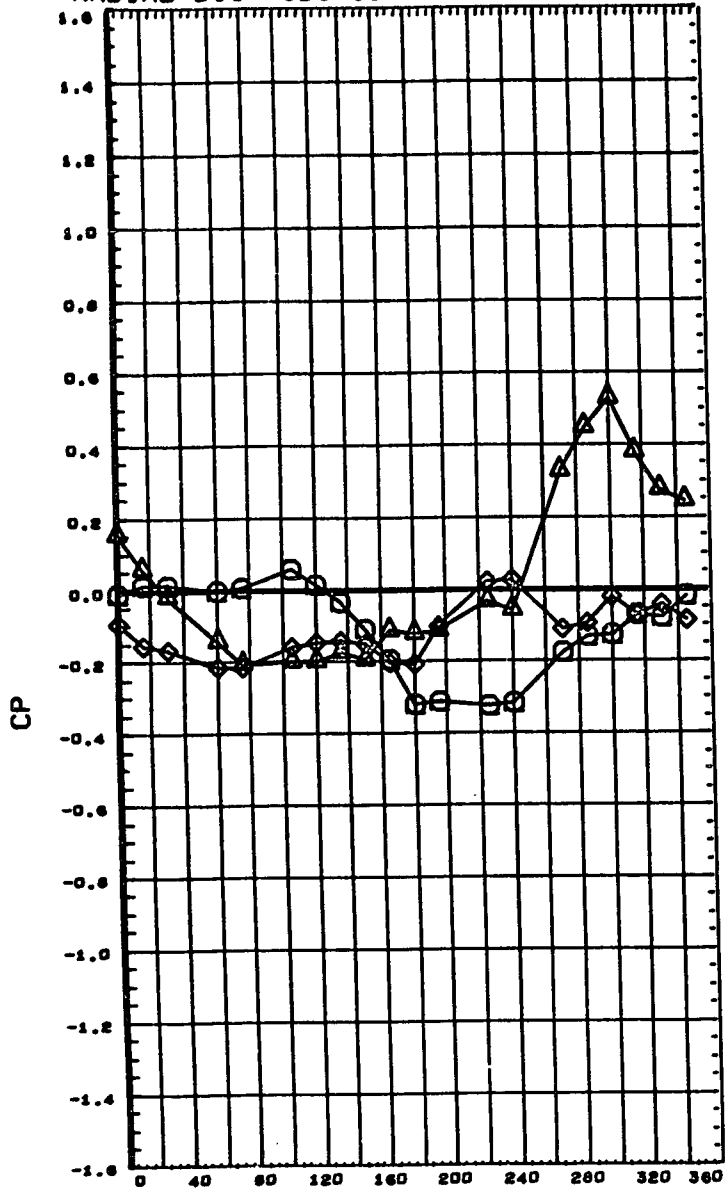
PARAMETRIC VALUES			
BETA	0.000	ORBINC	1.900
SRBGAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R701SM)

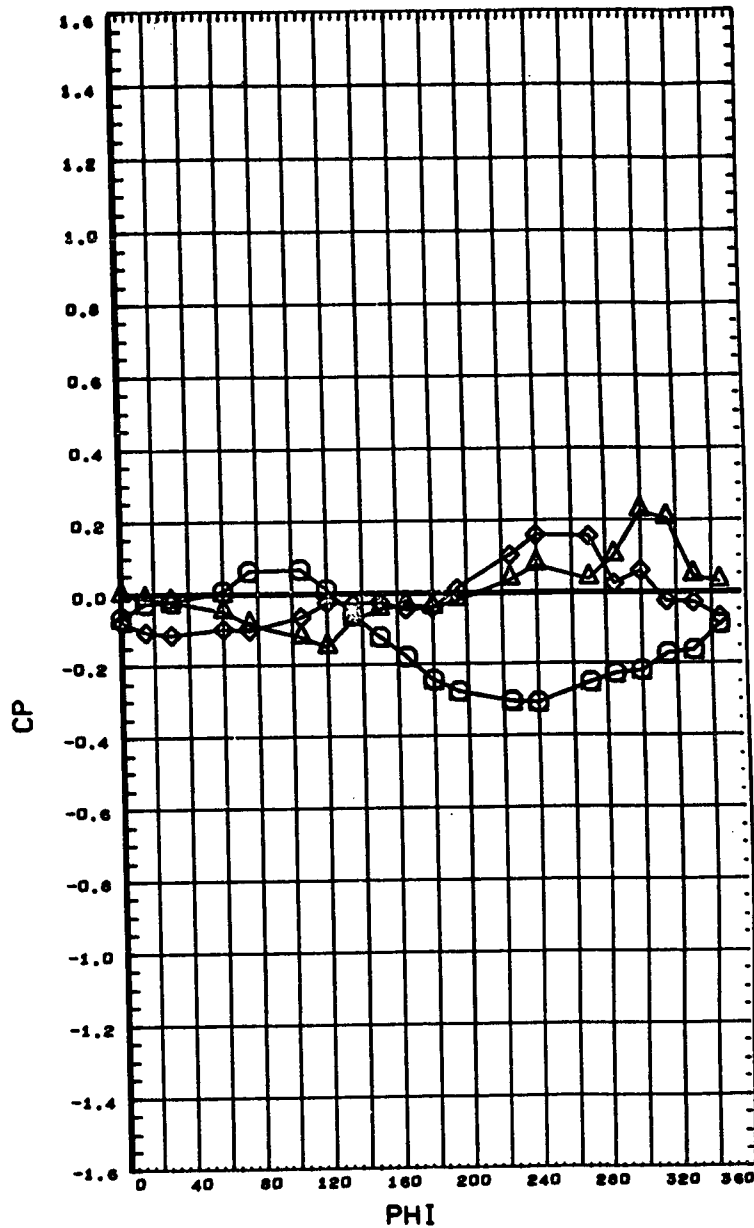
PAGE 687

RADIAL DISTRIBUTION OF SRB PRESSURES



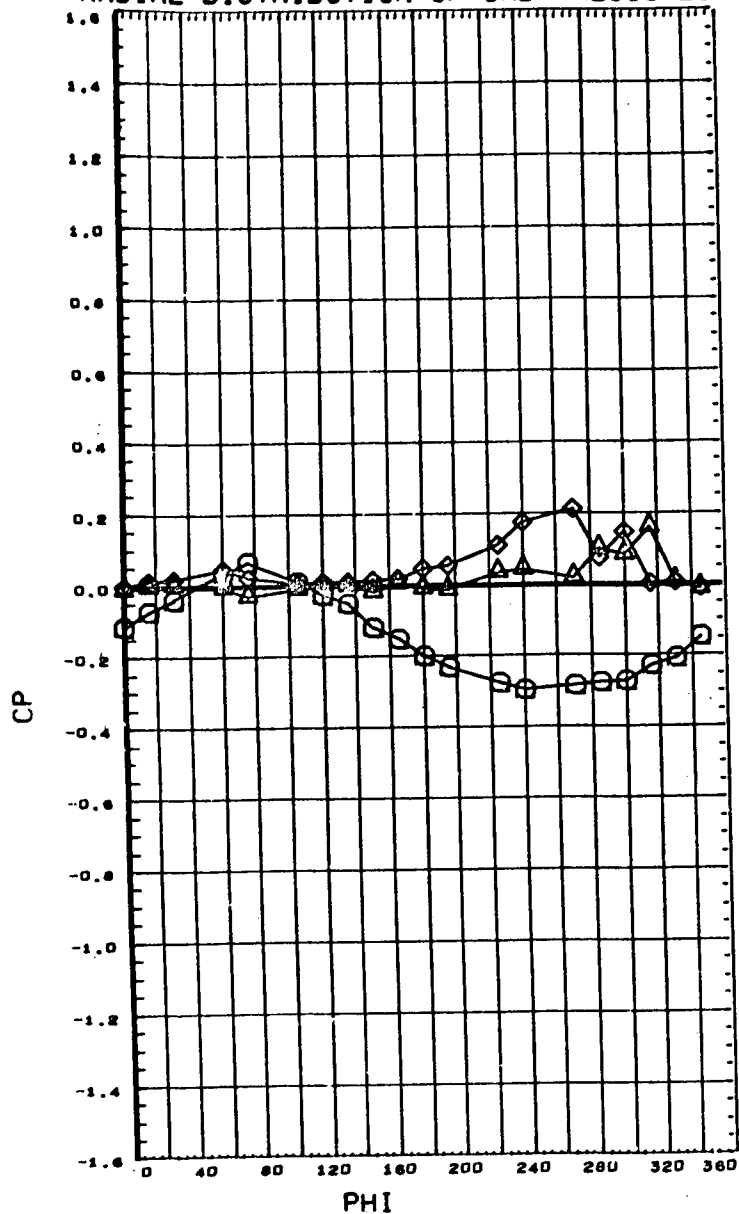
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	- 10.000	1.960
△	2.329	- 4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



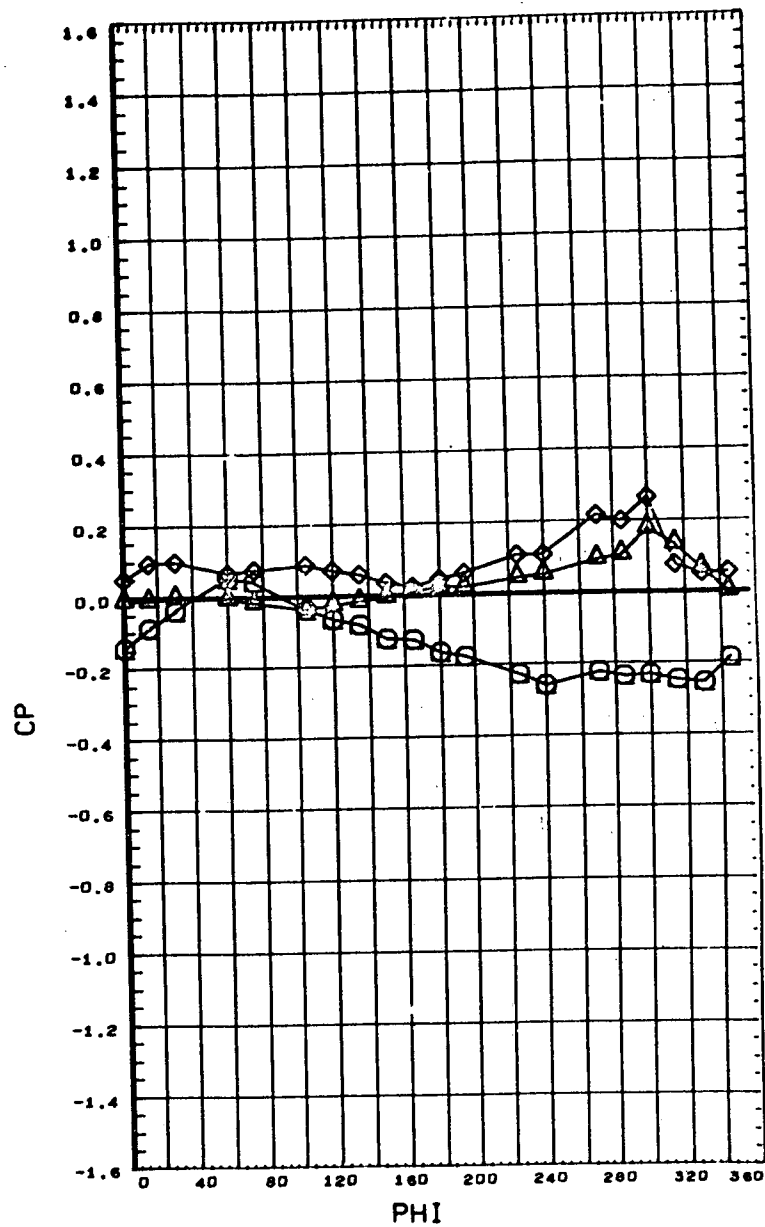
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



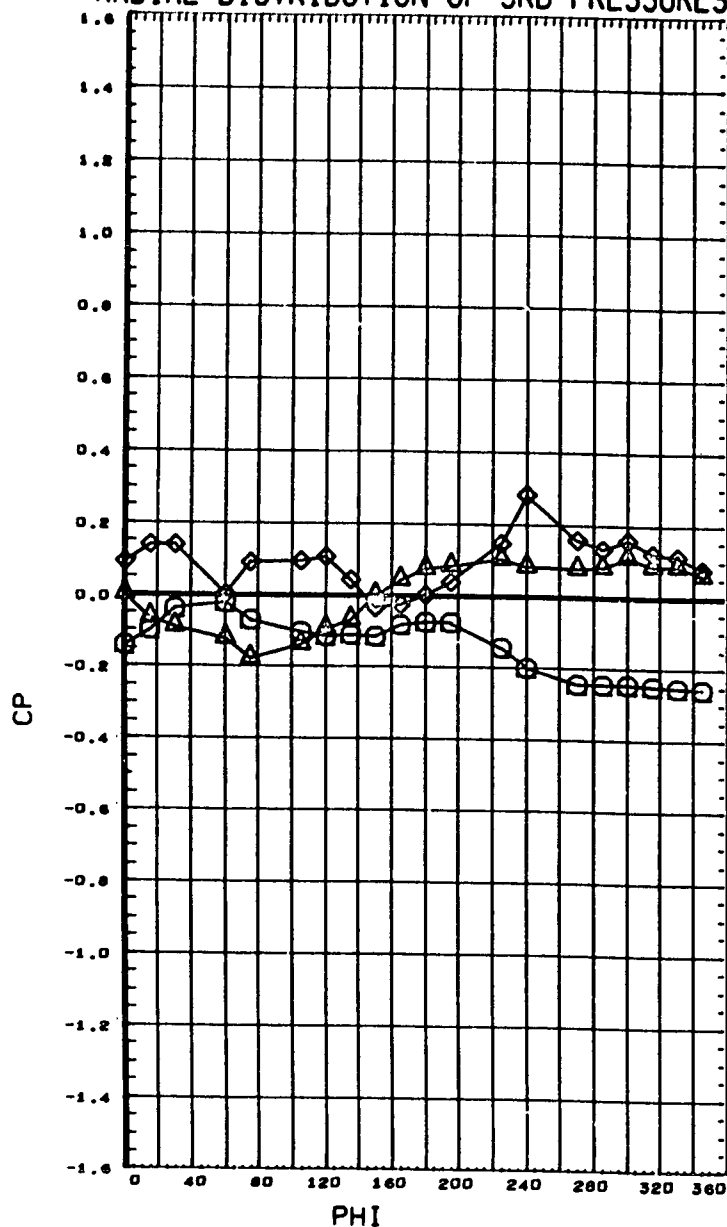
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	0.000	1.960
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.960
△	2.329		
◇	3.512		

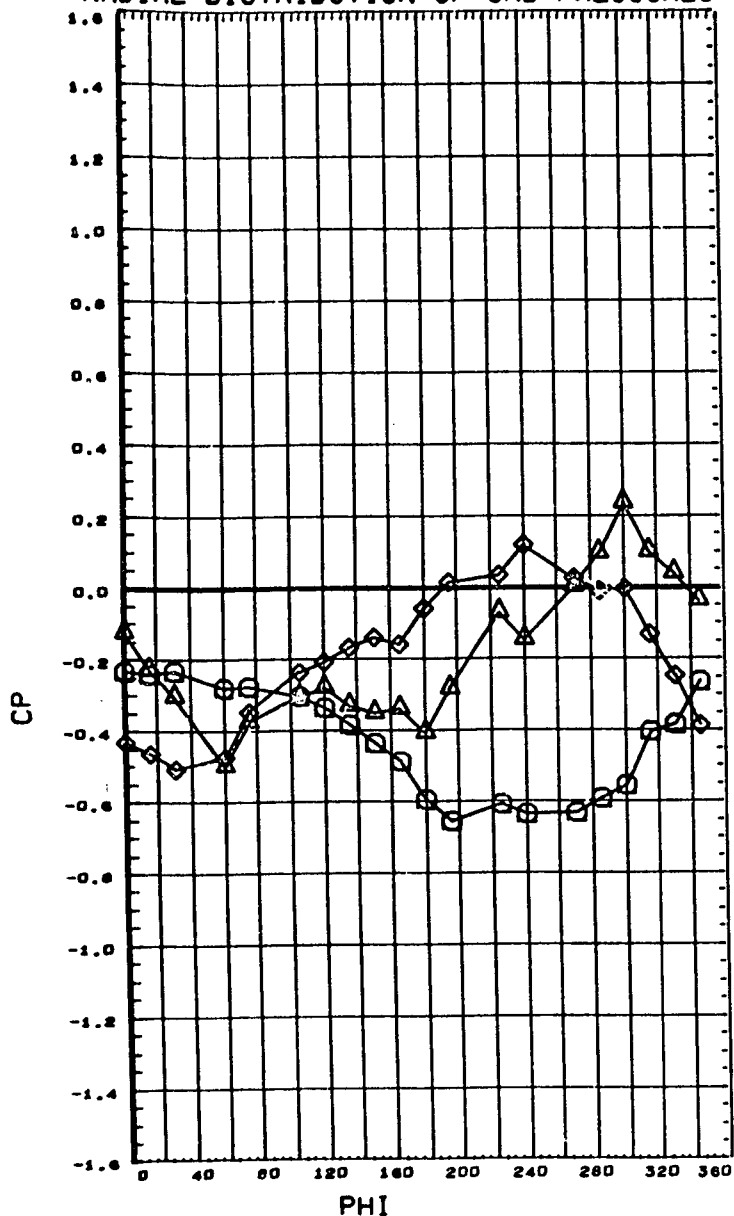
PARAMETRIC VALUES		
BETA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R701SM)

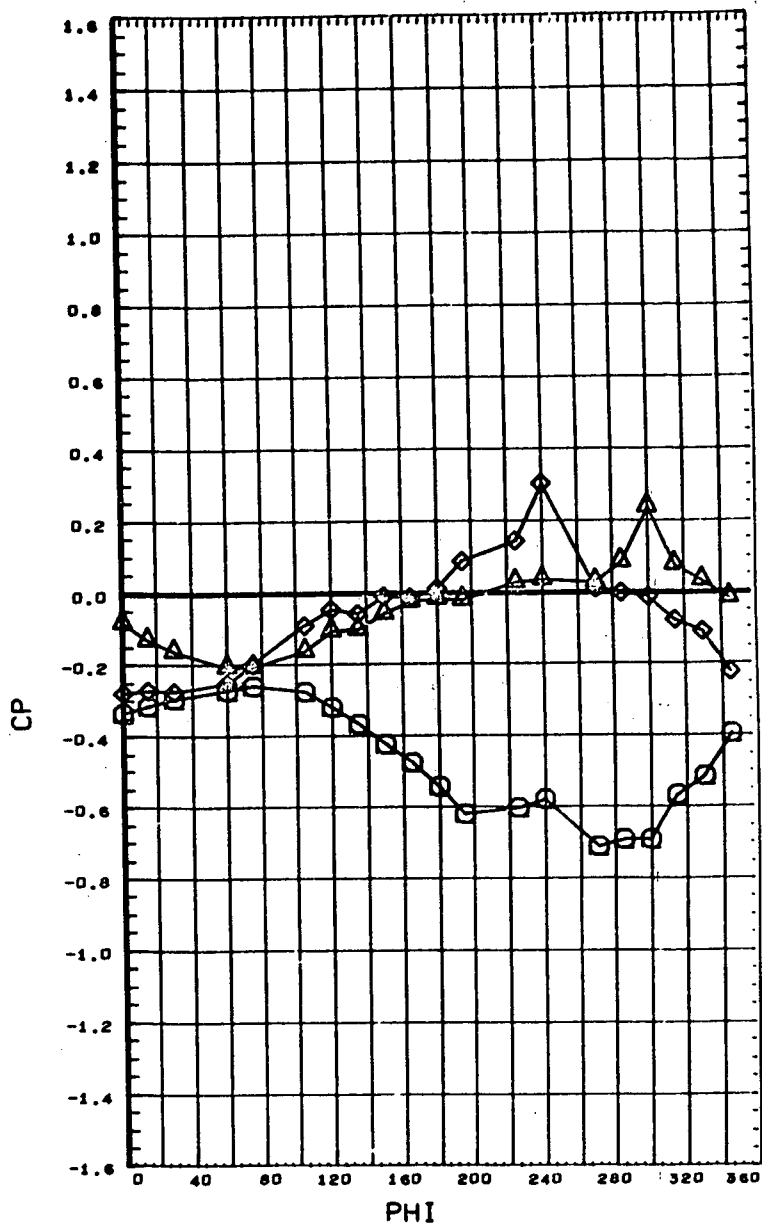
PAGE 690

RADIAL DISTRIBUTION OF SRB PRESSURES



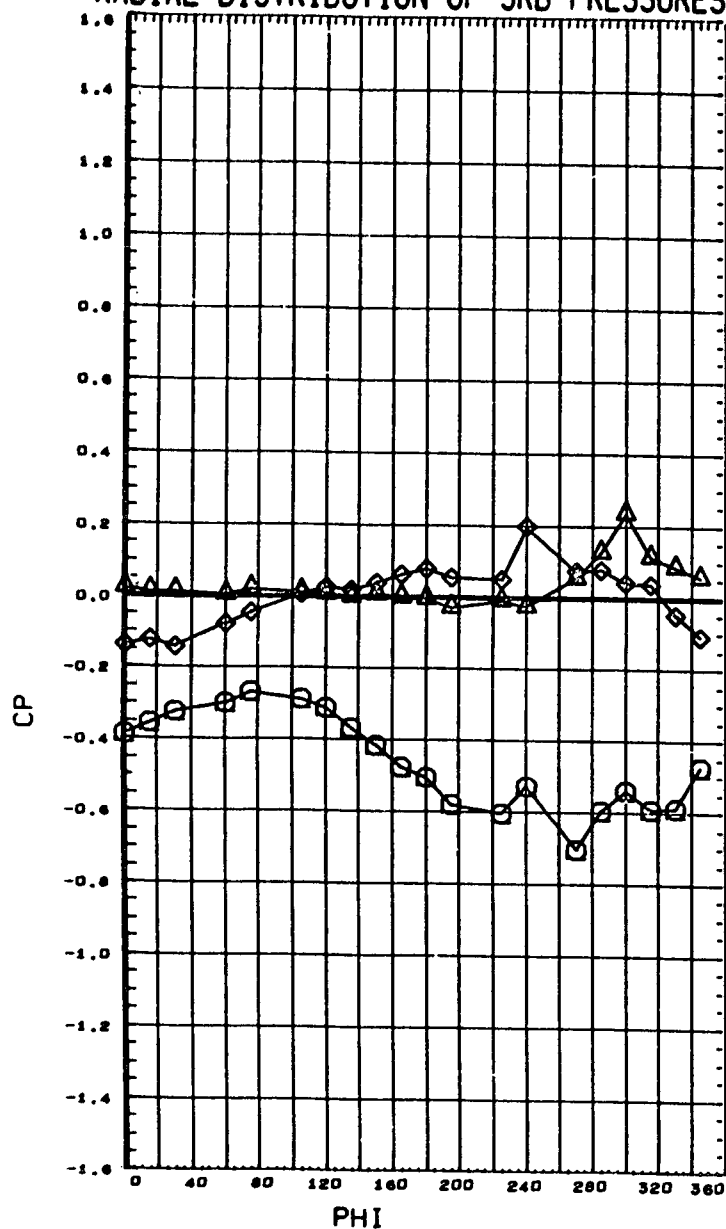
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	- 10.000	1.200
△	2.329	- 4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

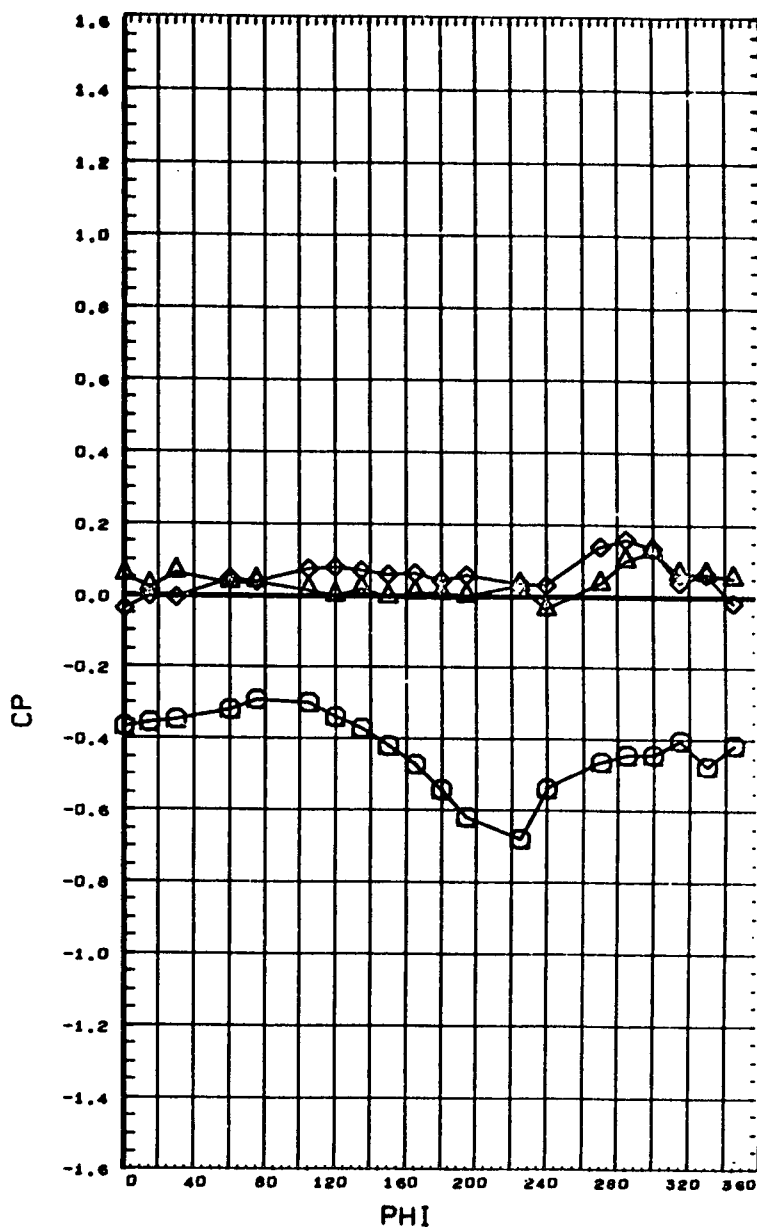


PARAMETRIC VALUES			
BETA	0.000	ORBINC	0.000
SRBGAP	0.025		

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.999	0.000	1.200
△	2.329	4.000	
◇	3.512		



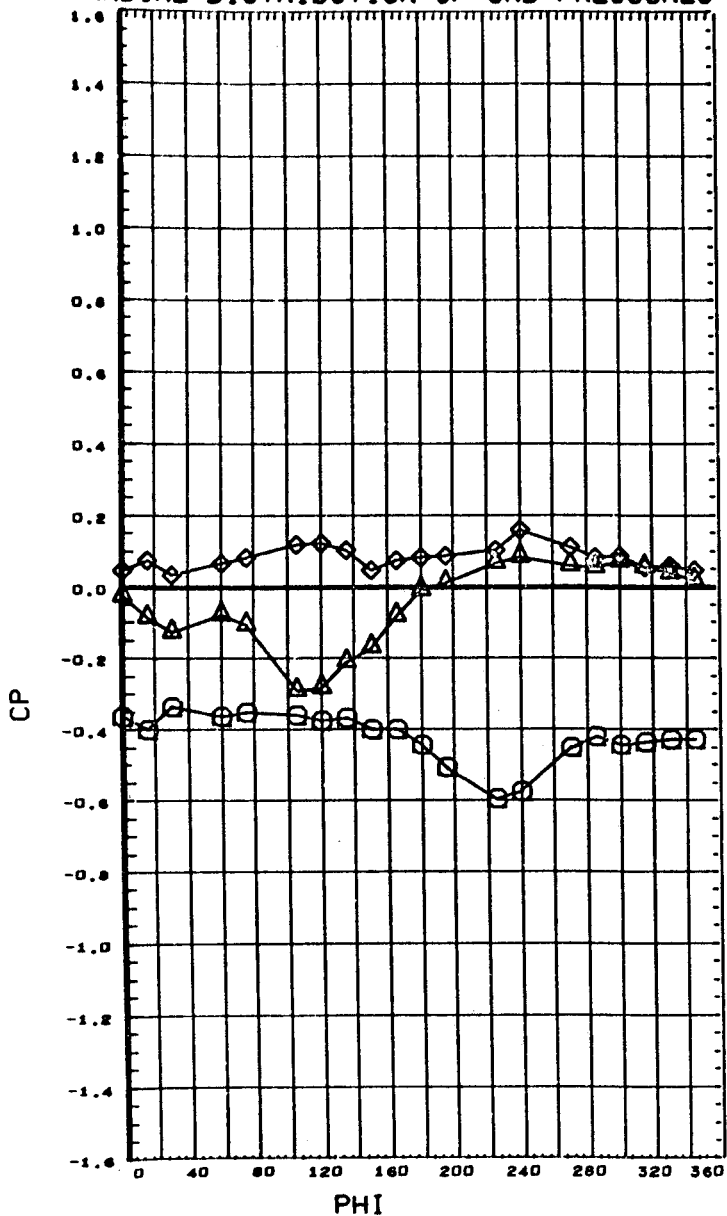
PARAMETRIC VALUES		
BETA	0.000	ORGINC
SRBGAP	0.025	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R702SM)

PAGE 692

RADIAL DISTRIBUTION OF SRB PRESSURES

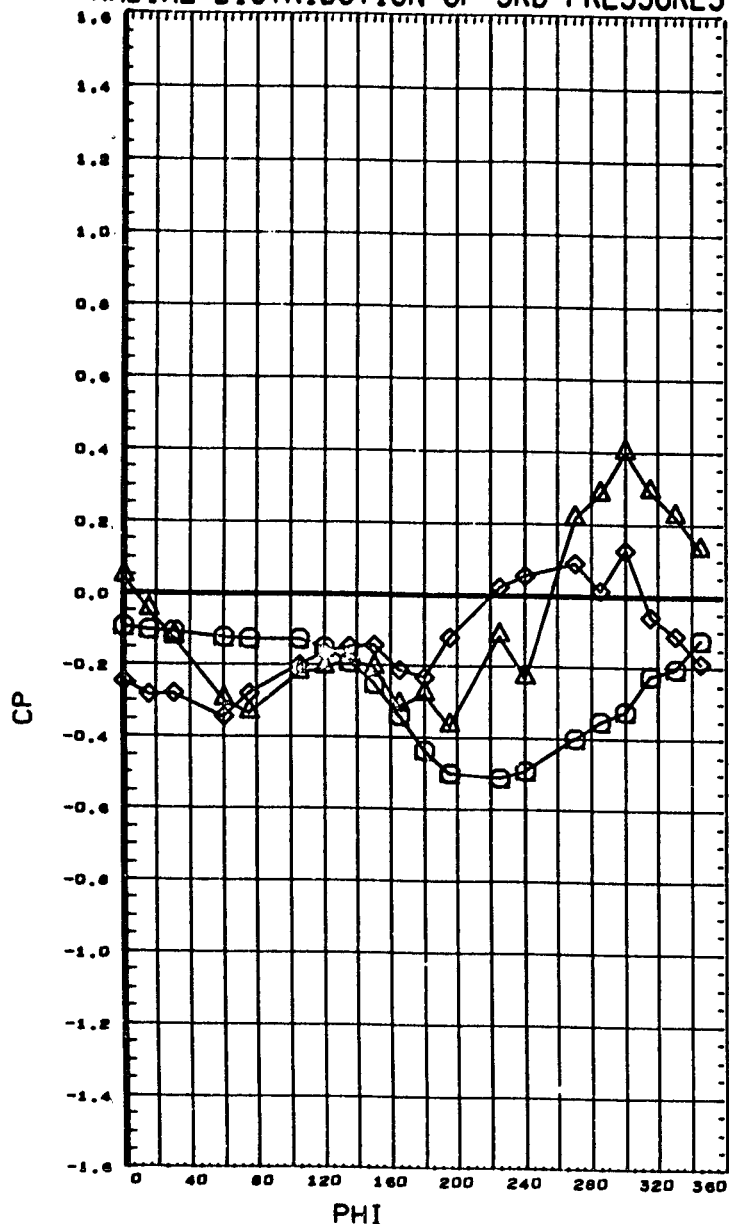


SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.200
△	2.329		
◇	3.512		

PARAMETRIC VALUES			
BETA	0.000	ORBINC	0.000
SRBCAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

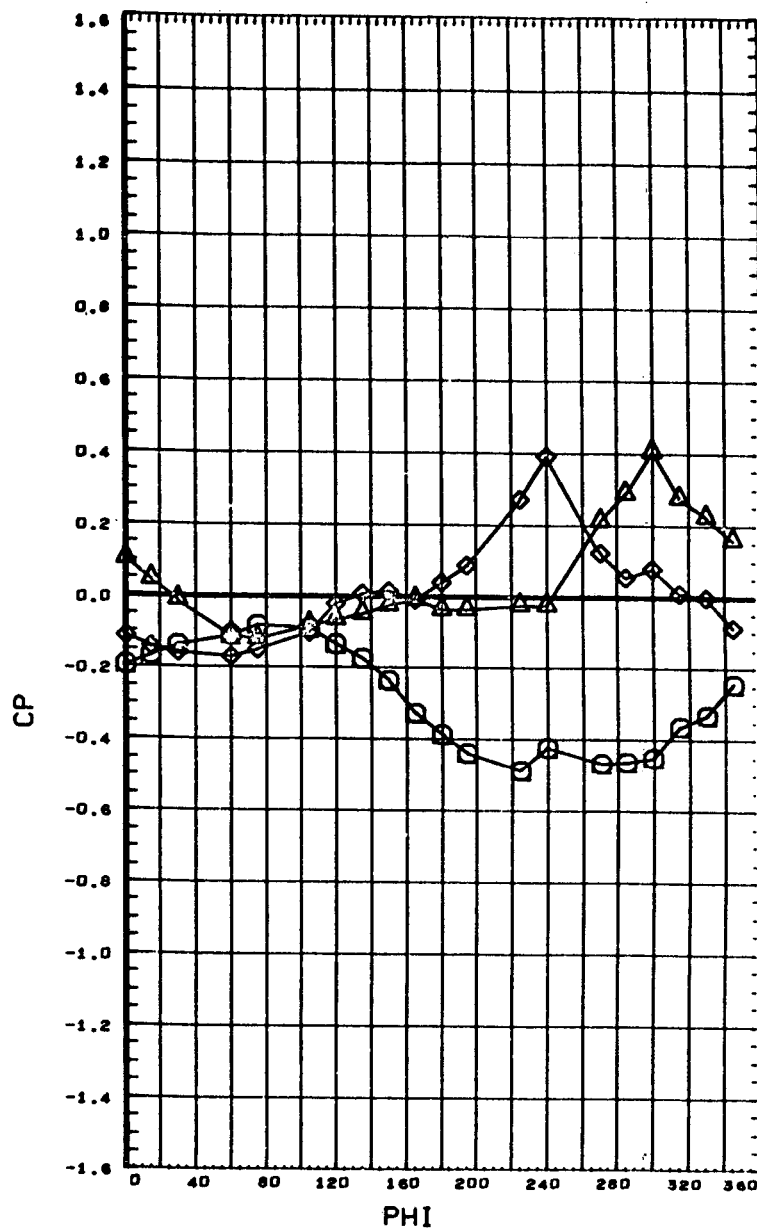
RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.460
△	2.329	4.000	
◇	3.512		

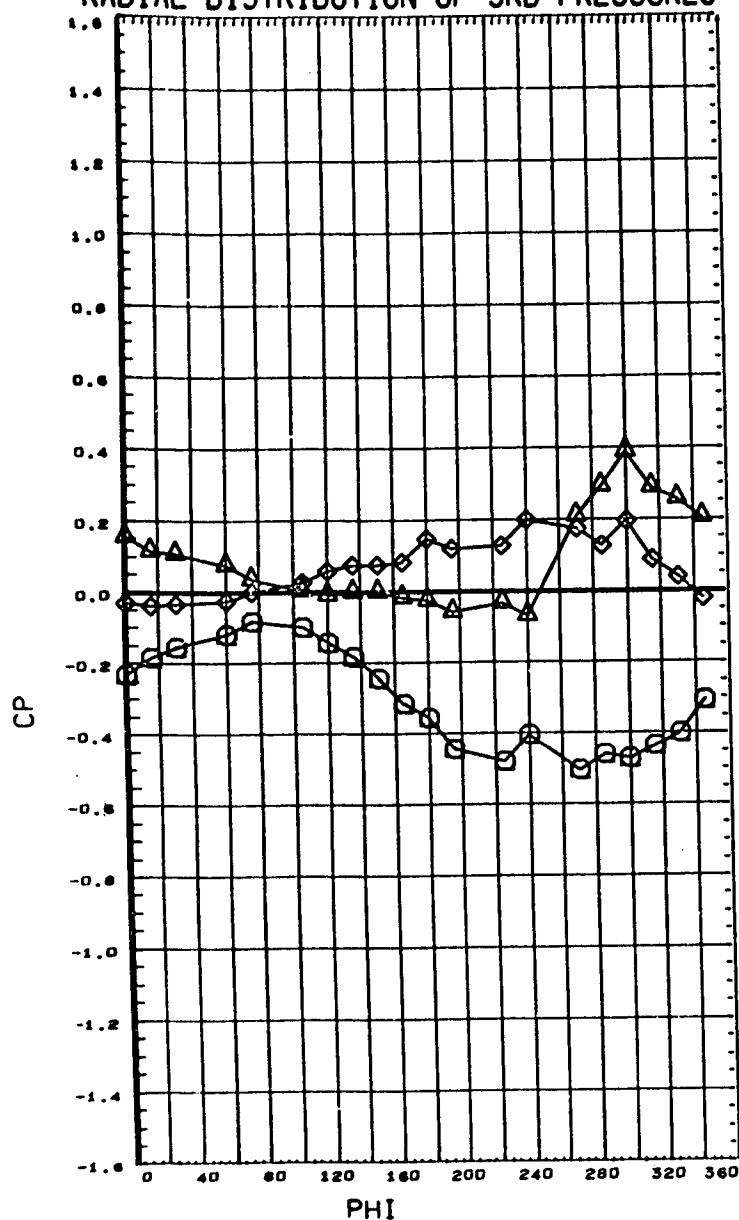
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R702SM)



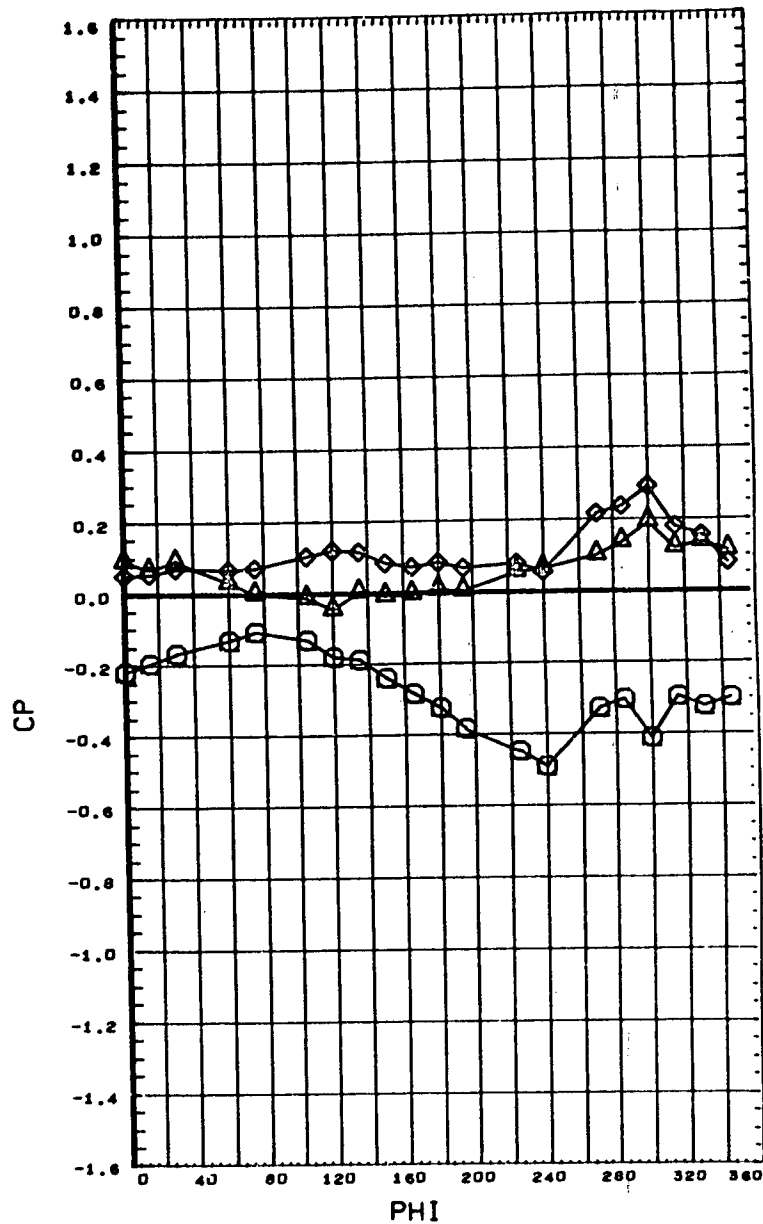
PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



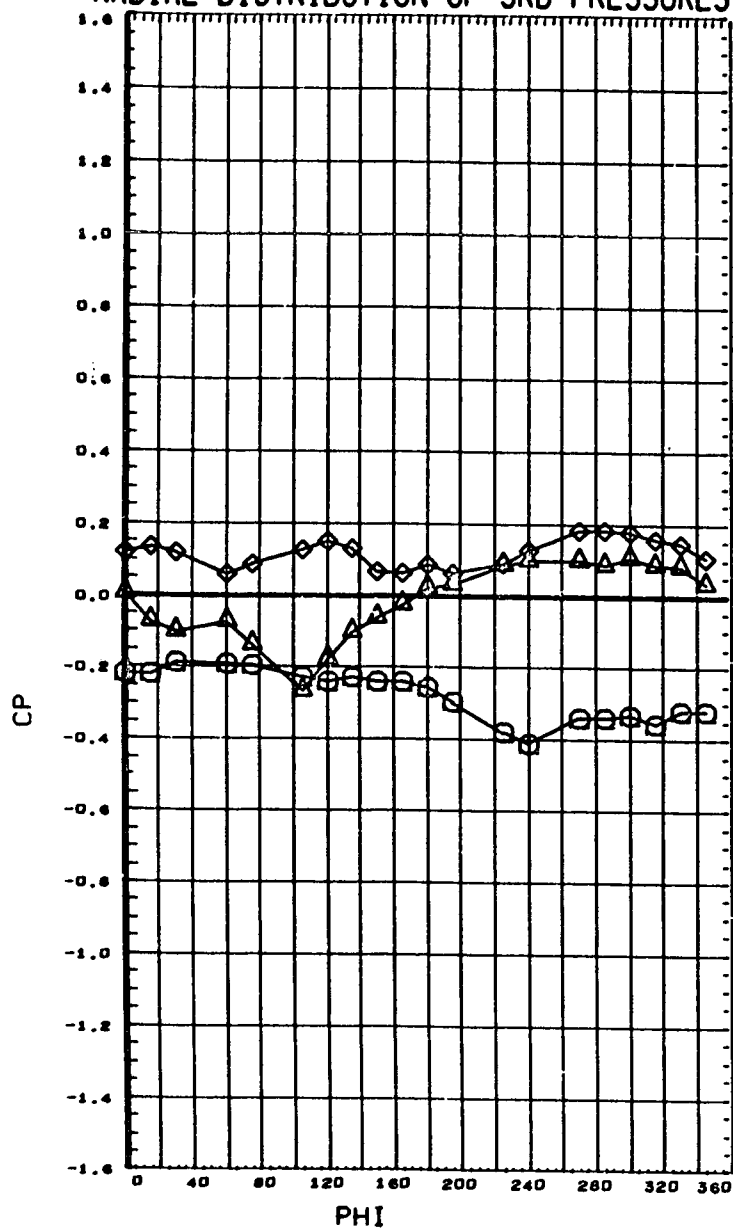
SYMBOL	X/LREF	ALPHA	MACH
○	0.998	0.000	1.460
△	2.329	4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES		
BETA	0.000	ORBINC 0.000
SRBCAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	ALPHA	MACH
○	0.998	10.000	1.460
△	2.329		
◇	3.512		

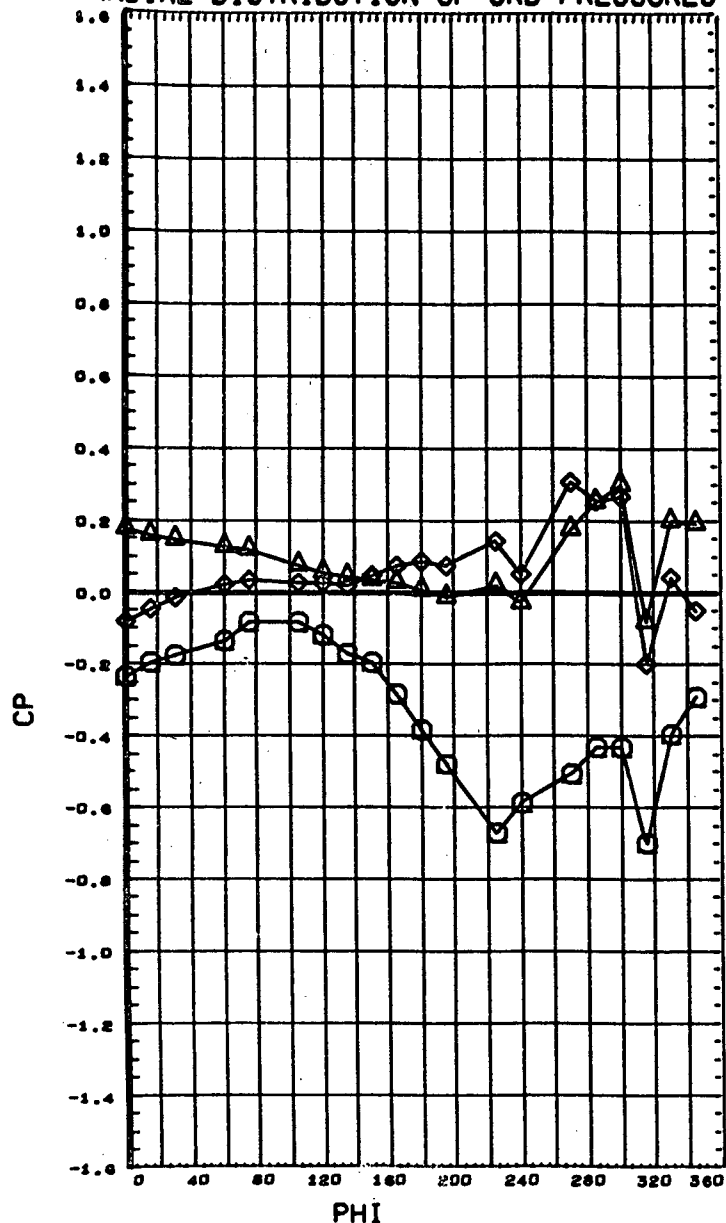
PARAMETRIC VALUES			
BETA	0.000	ORBINC	0.000
SRBGAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R702SM)

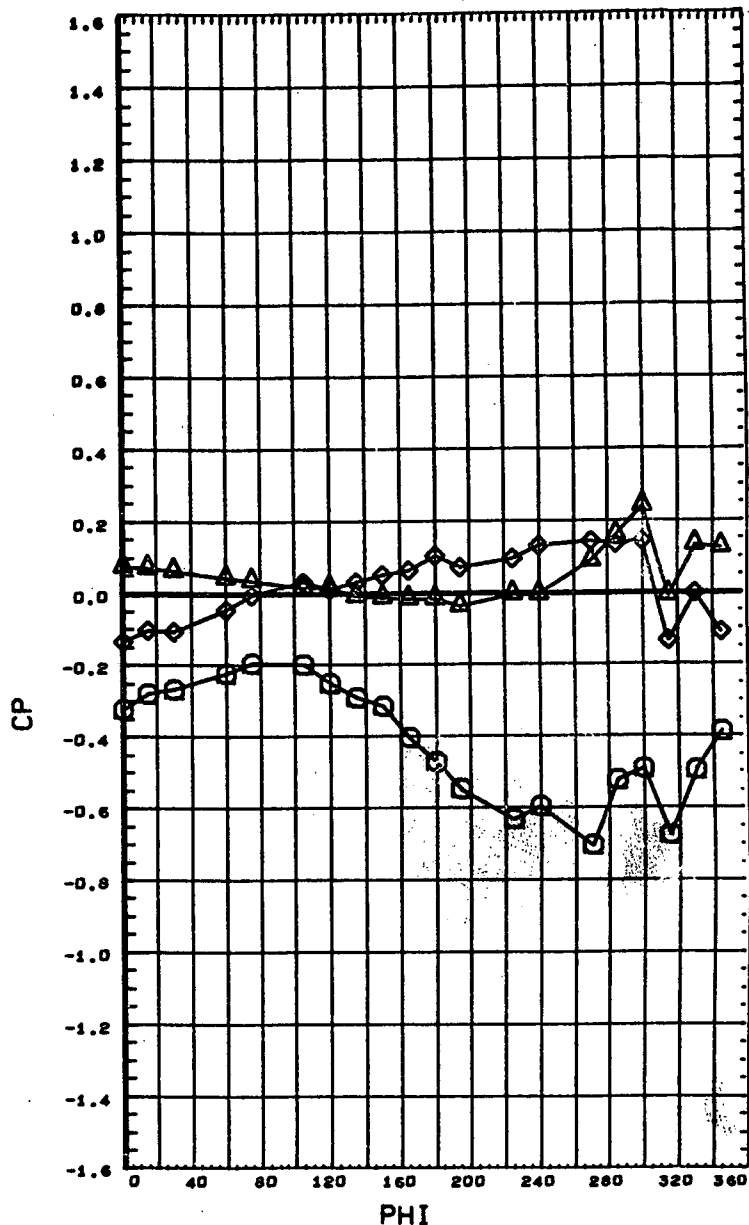
PAGE 696

RADIAL DISTRIBUTION OF SRB PRESSURES



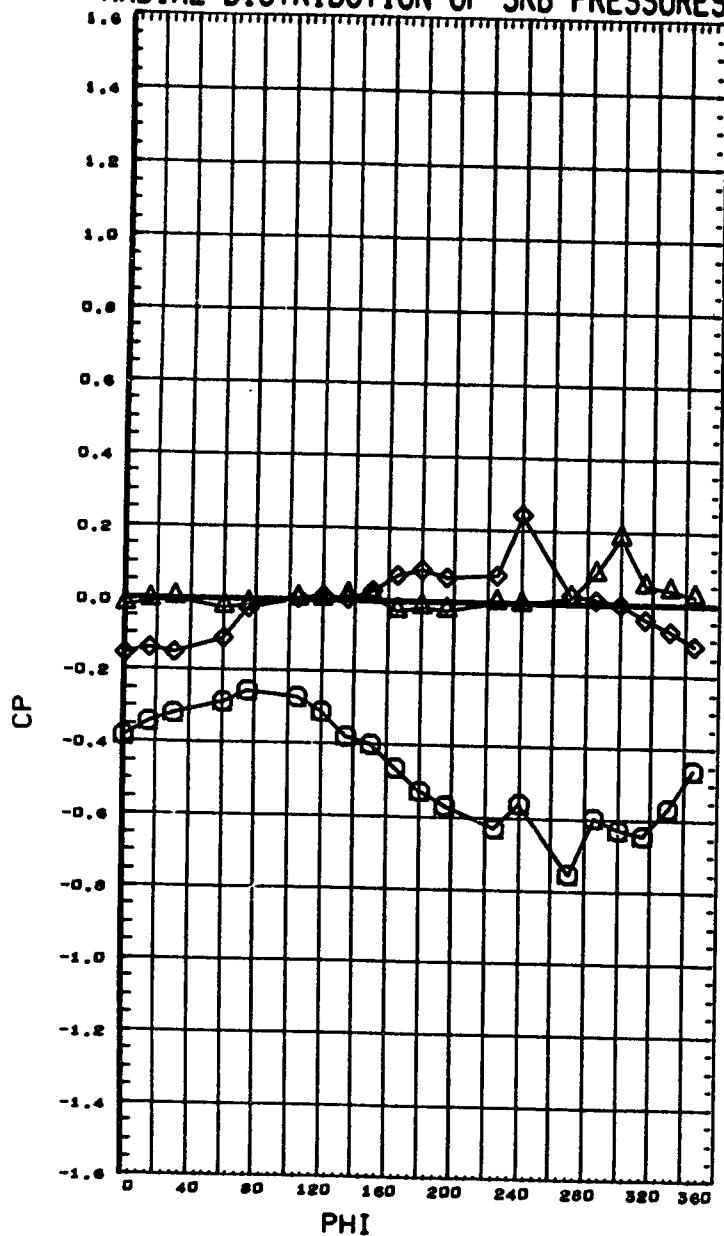
SYMBOL	X/LREF	BETA	MACH
○	0.998	- 10.000	1.200
△	2.329	- 4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369



PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

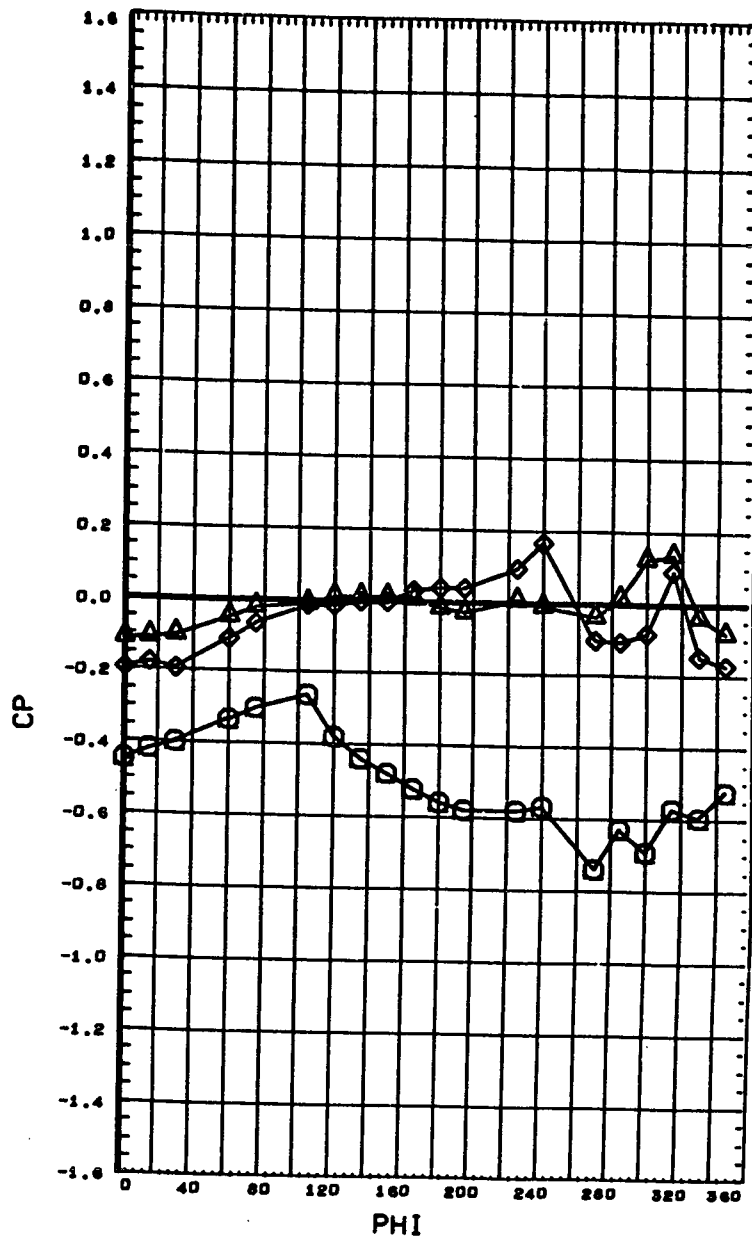
RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	BETA	MACH
○	0.998	0.000	1.200
△	2.329	4.000	
◇	3.512		

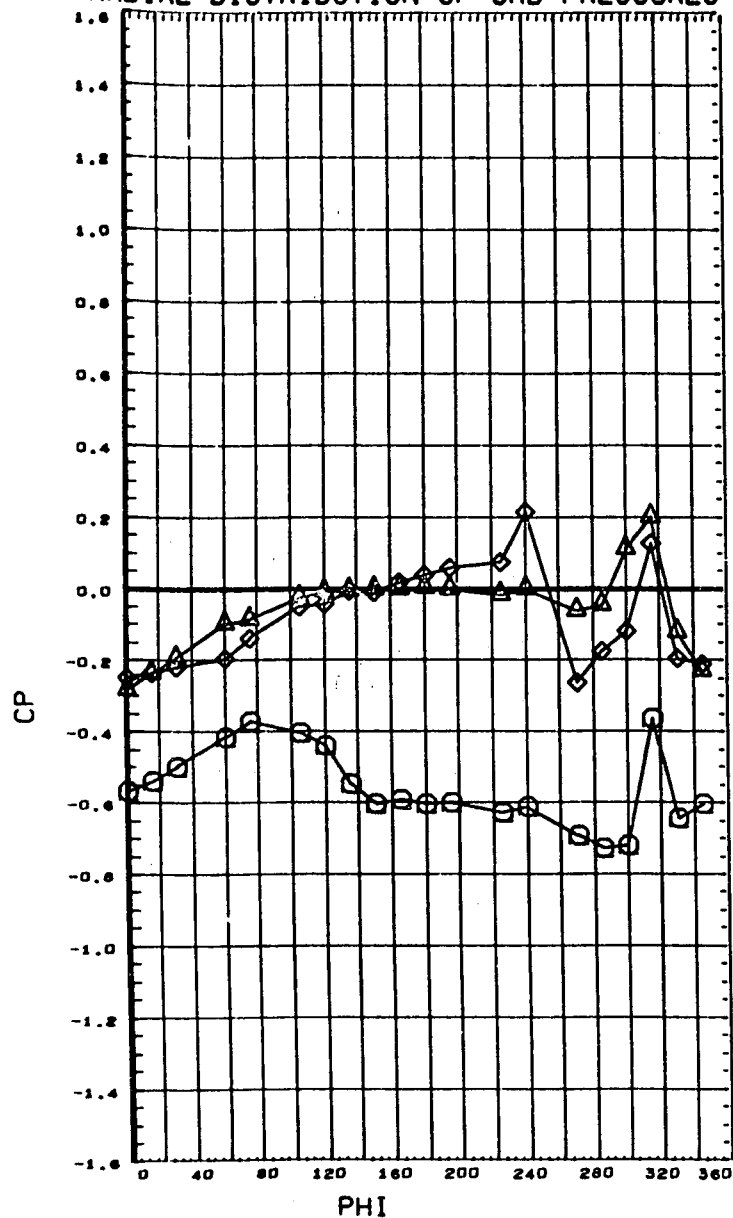
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R703SM)



PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES

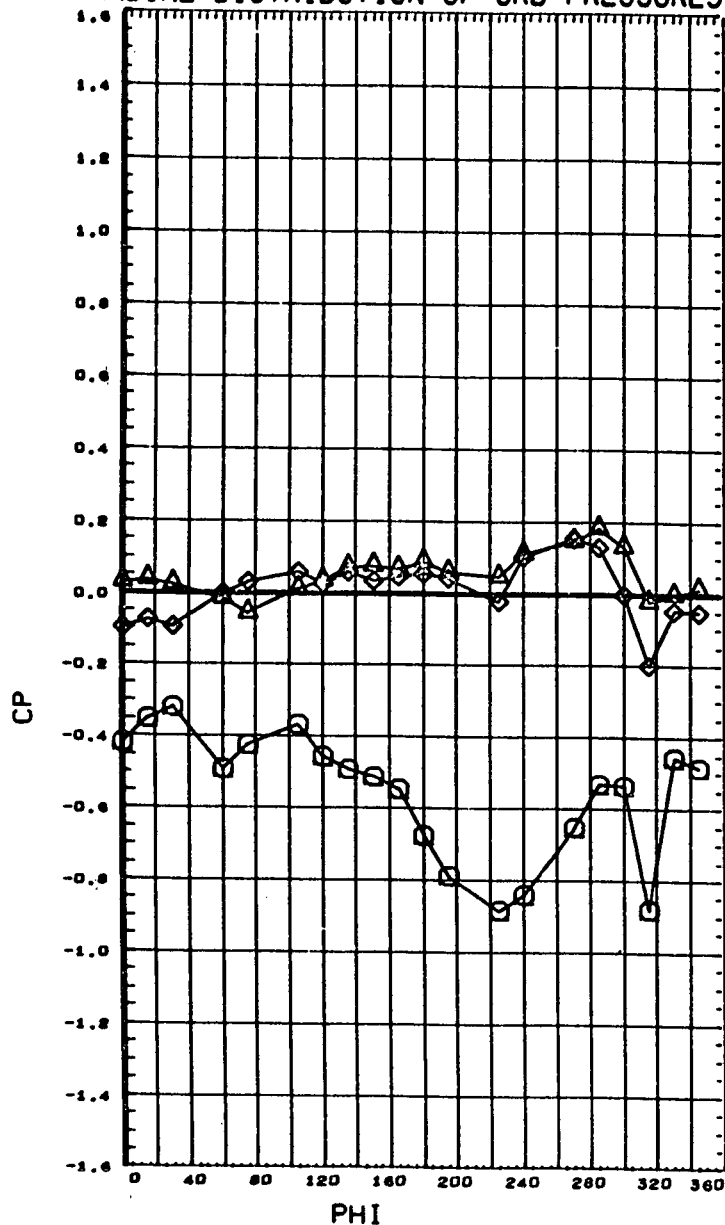


SYMBOL	X/LREF	BETA	MACH
○	0.998	10.000	1.200
△	2.329		
◇	3.912		

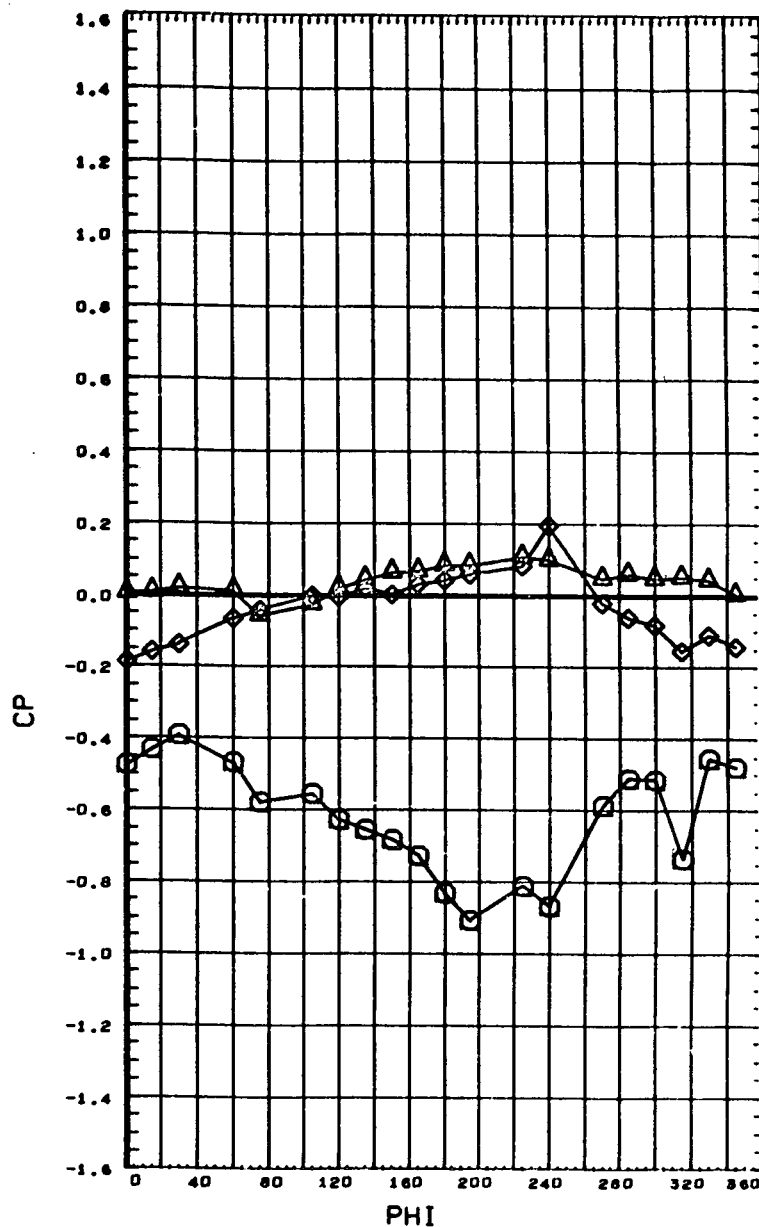
PARAMETRIC VALUES		
ALPHA	0.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

RADIAL DISTRIBUTION OF SRB PRESSURES



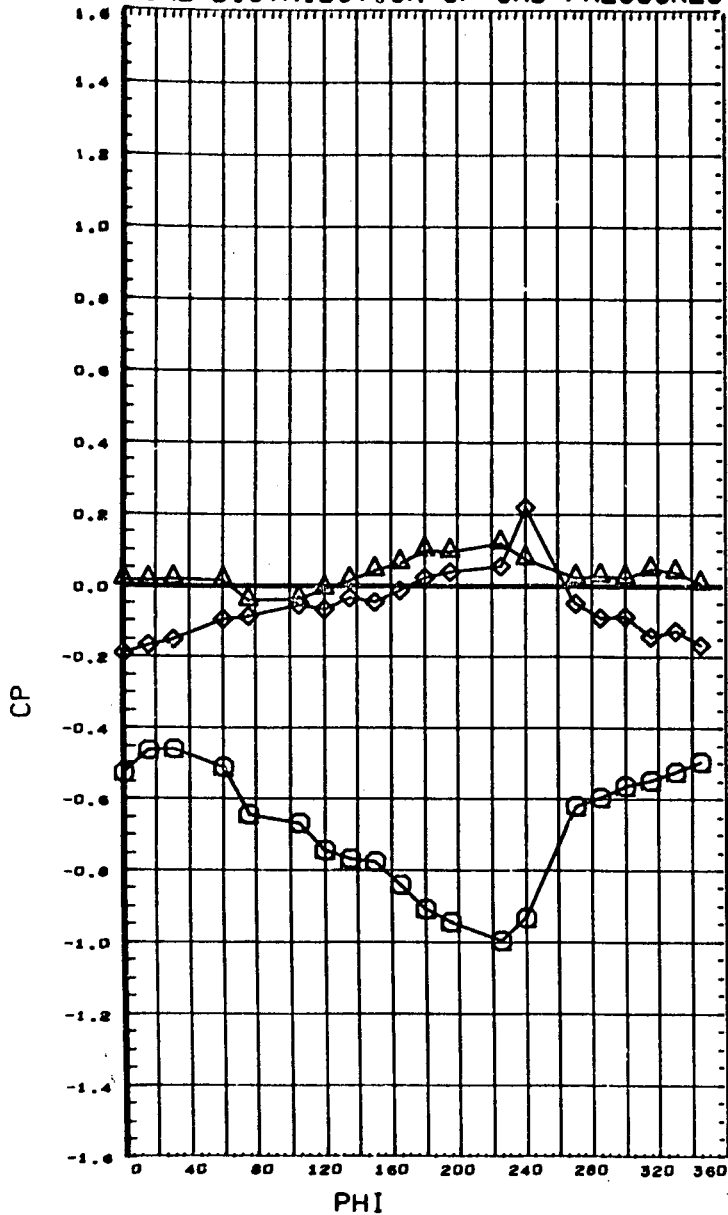
SYMBOL	X/LREF	BETA	MACH
○	0.998	- 10.000	0.950
△	2.329	- 4.000	
◇	3.512		



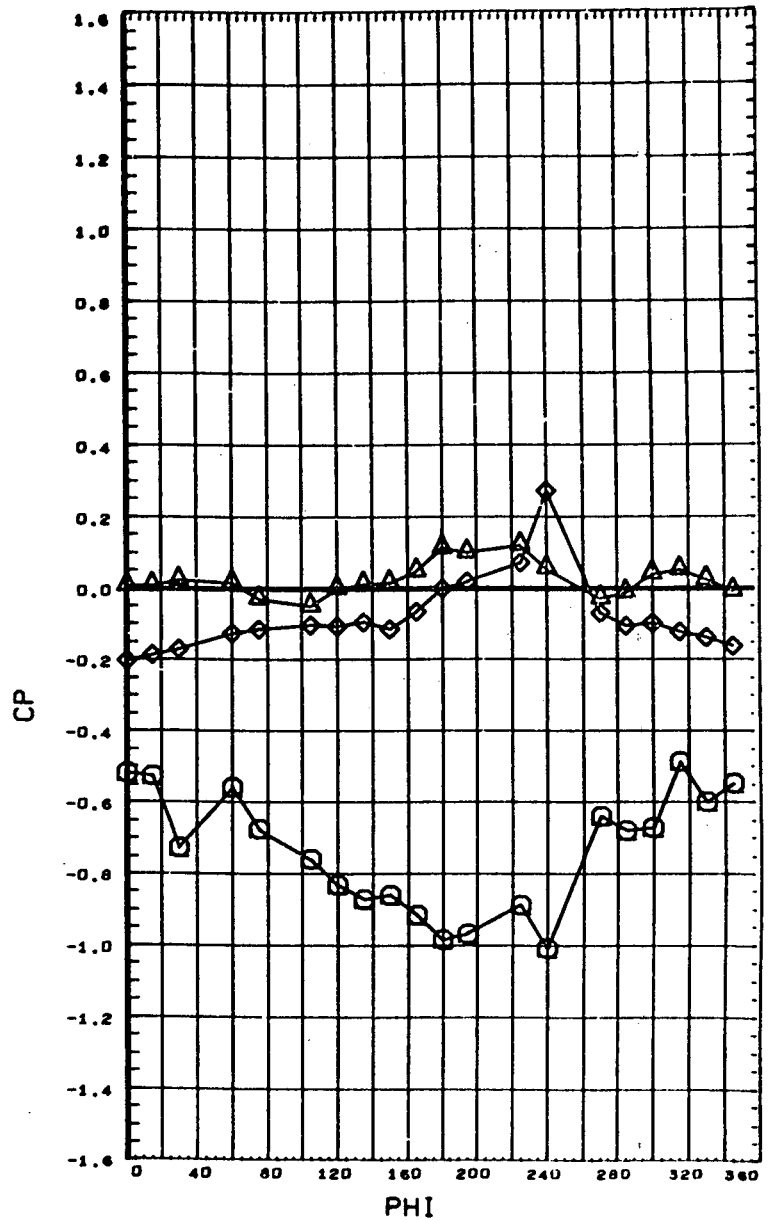
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

RADIAL DISTRIBUTION OF SRB PRESSURES



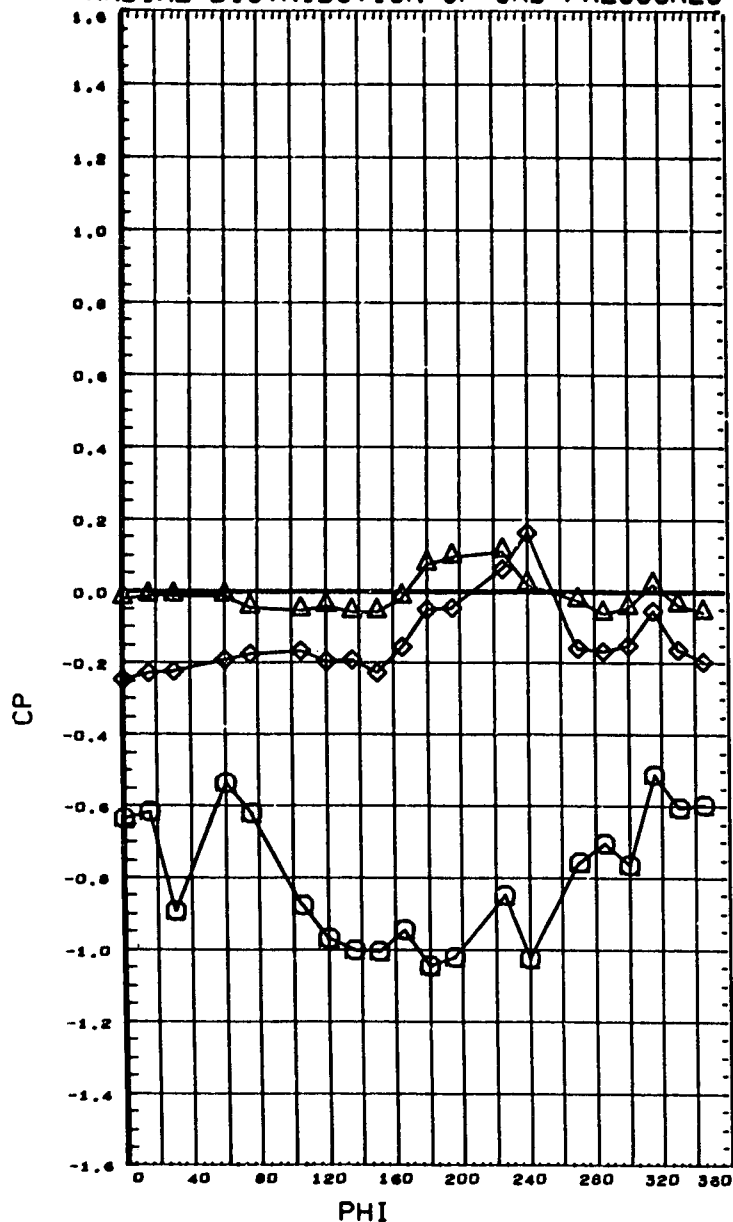
SYMBOL	X/LREF	BETA	MACH
○	0.998	0.000	0.950
△	2.329	4.000	
◇	3.512		



PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	BETA	MACH
○	0.998	10.000	0.950
△	2.329		
◇	3.512		

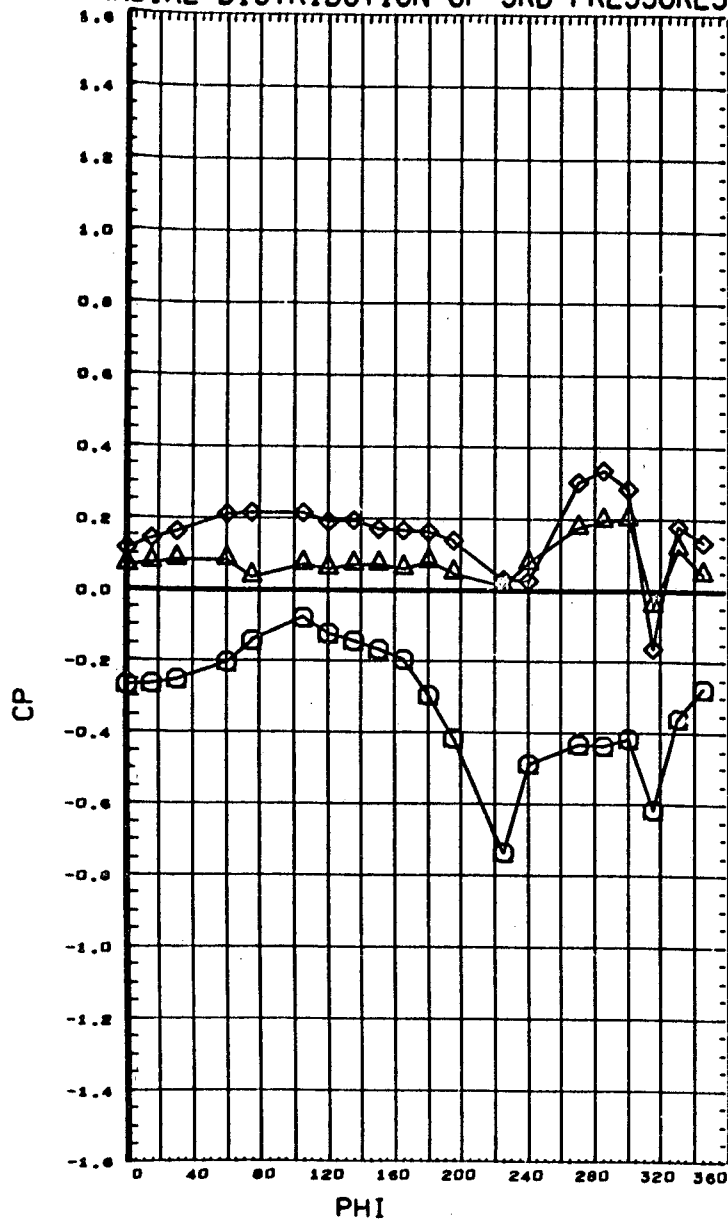
PARAMETRIC VALUES			
ALPHA	6.000	ORBINC	- 1.500
SRBGAP	0.025		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R704SM)

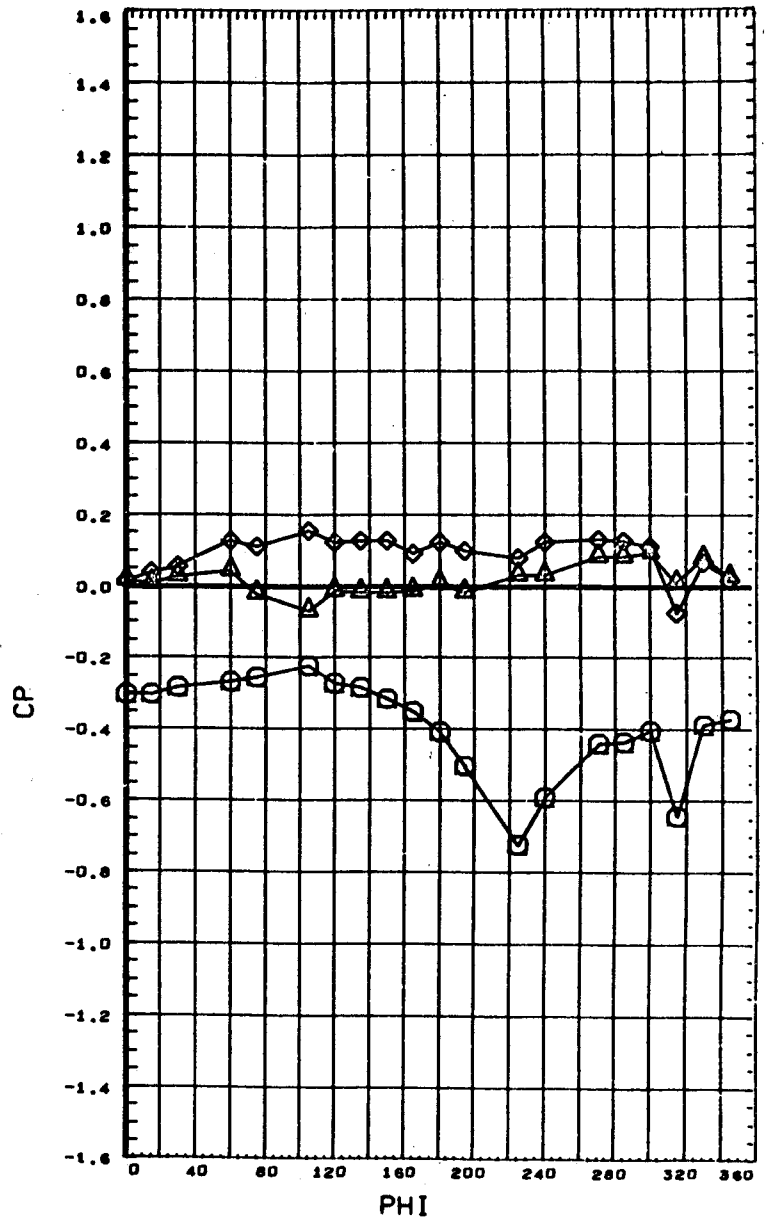
PAGE 702

RADIAL DISTRIBUTION OF SRB PRESSURES



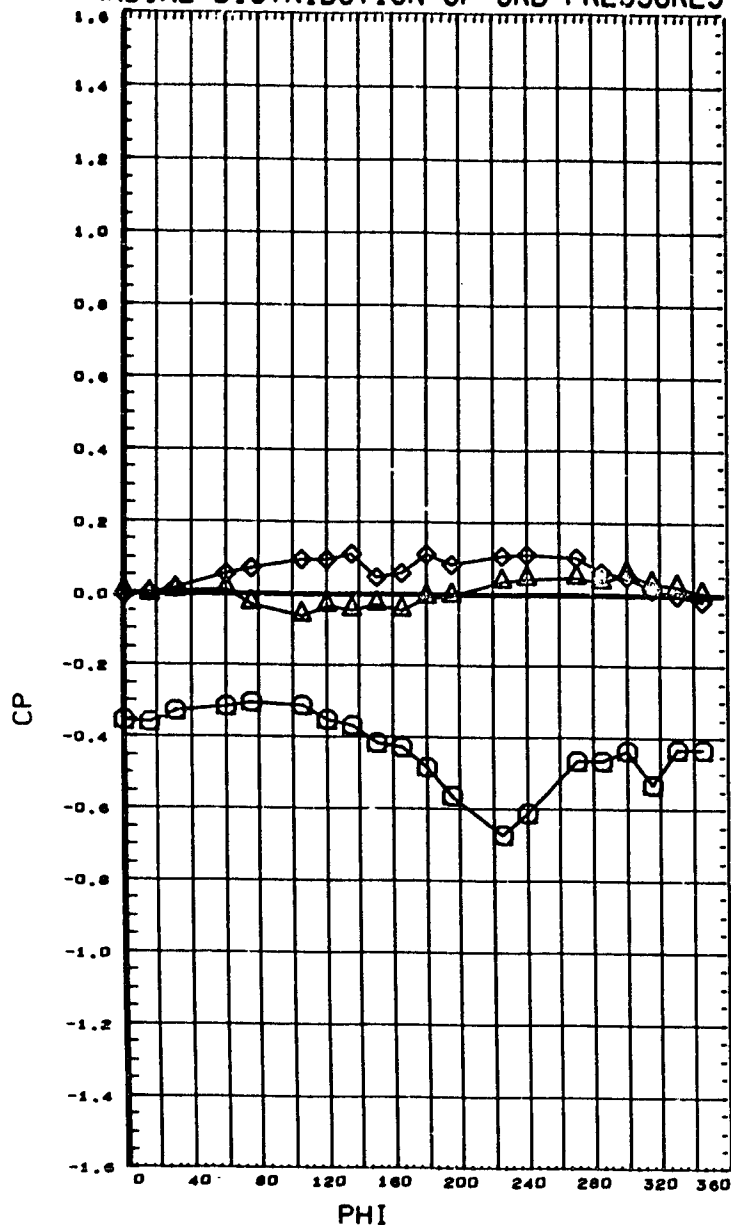
SYMBOL	X/LREF	BETA	MACH
○	0.998	- 10.000	1.200
△	2.329	- 4.000	
◇	3.512		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

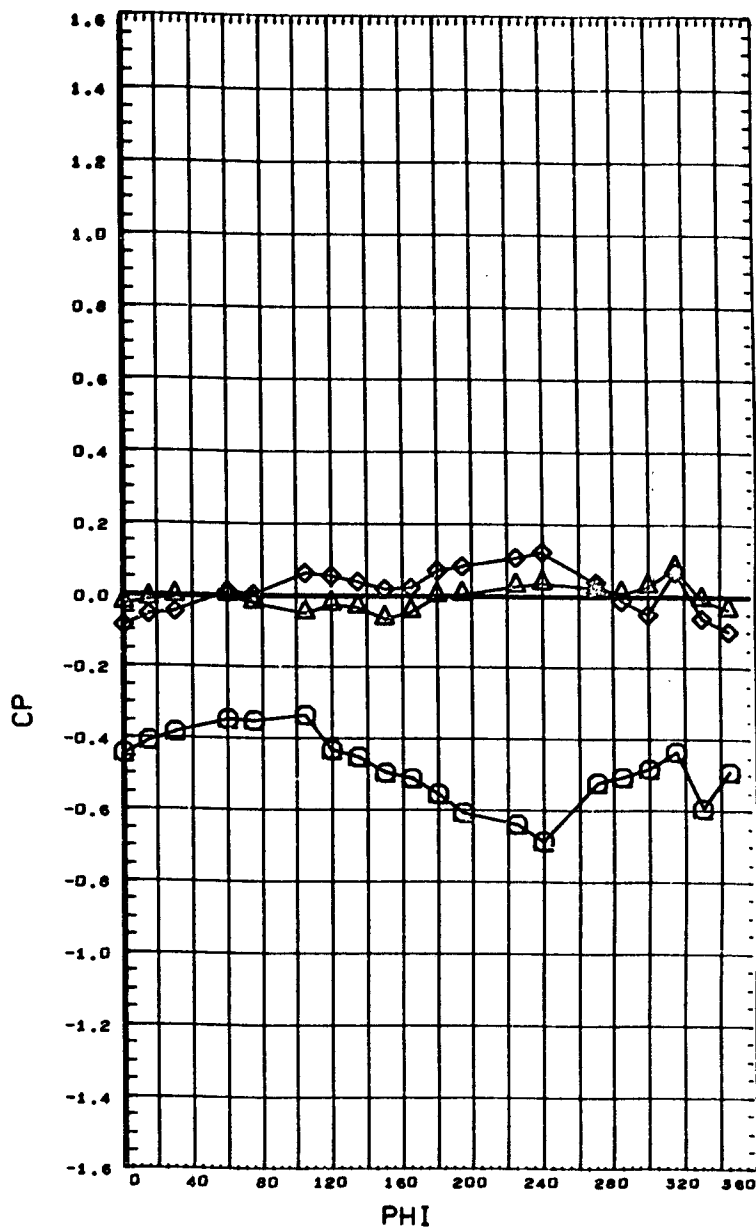


PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBCAP	0.025	

RADIAL DISTRIBUTION OF SRB PRESSURES



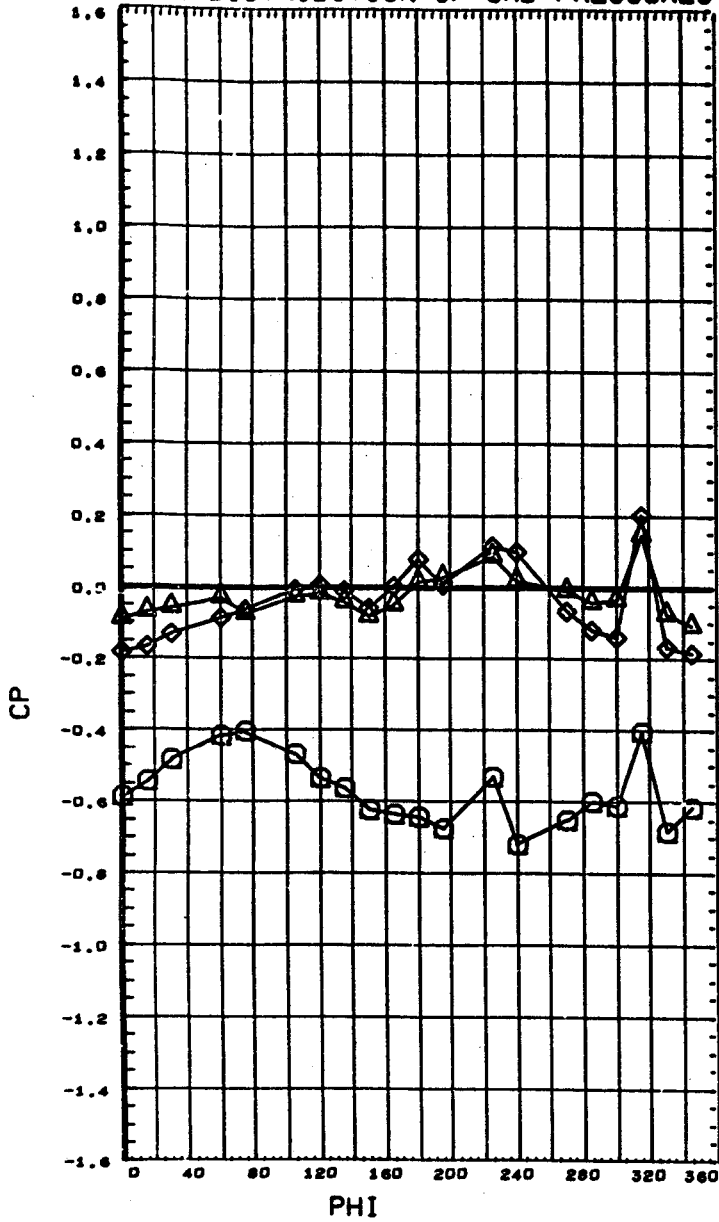
SYMBOL	X/LREF	BETA	MACH
○	0.999	0.000	1.200
△	2.329	4.000	
◇	3.512		



PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

RADIAL DISTRIBUTION OF SRB PRESSURES



SYMBOL	X/LREF	BETA	MACH
○	0.998	10.000	1.200
△	2.329		
◇	3.512		

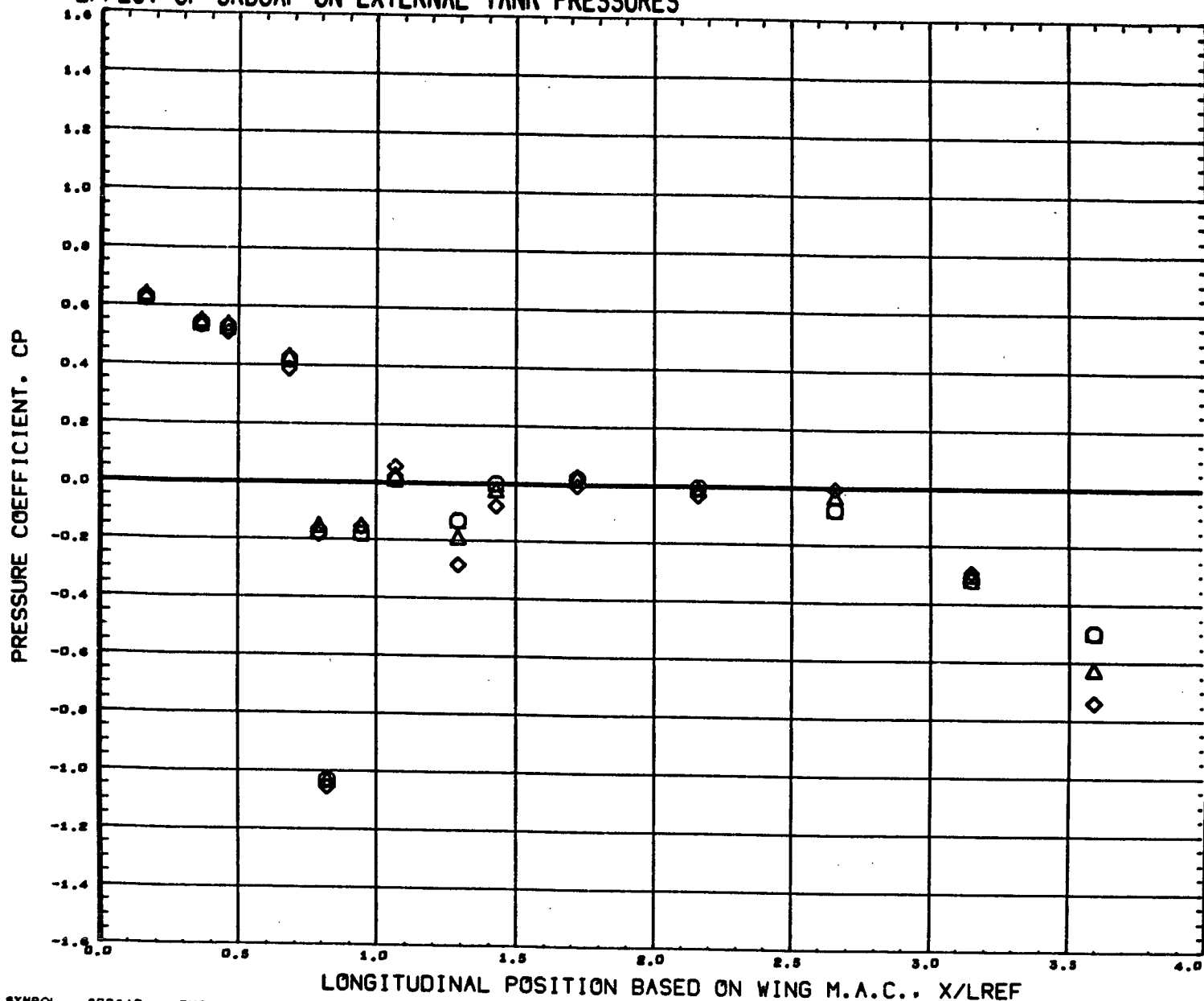
PARAMETRIC VALUES		
ALPHA	6.000	ORBINC - 1.500
SRBGAP	0.025	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R704SM)

PAGE 705

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL
 ○ SRBGAP 0.025
 △ SRBGAP 0.050
 ◇ SRBGAP 0.100

LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

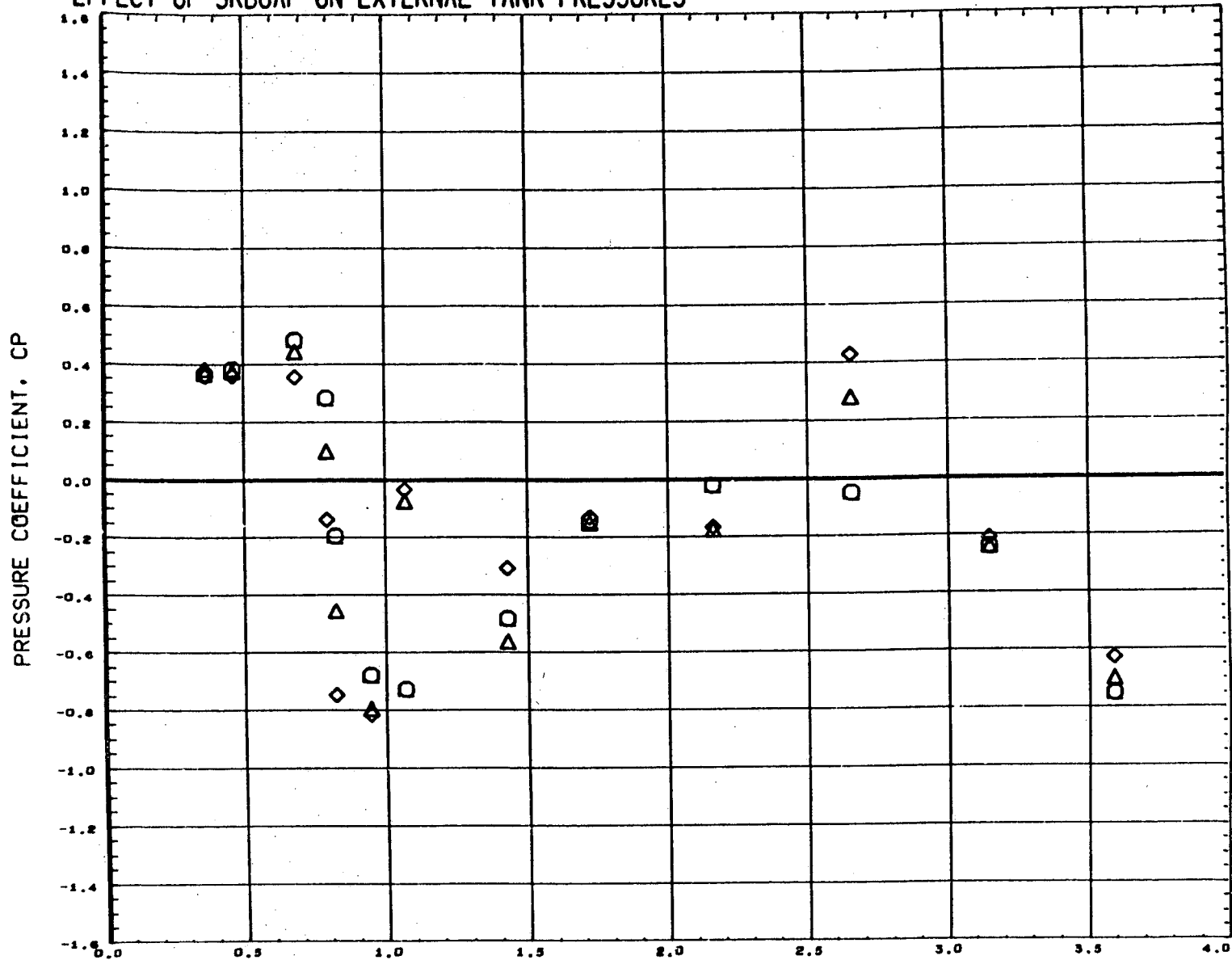
PARAMETRIC VALUES
 MACH 0.800 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7081T)

PAGE 706

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

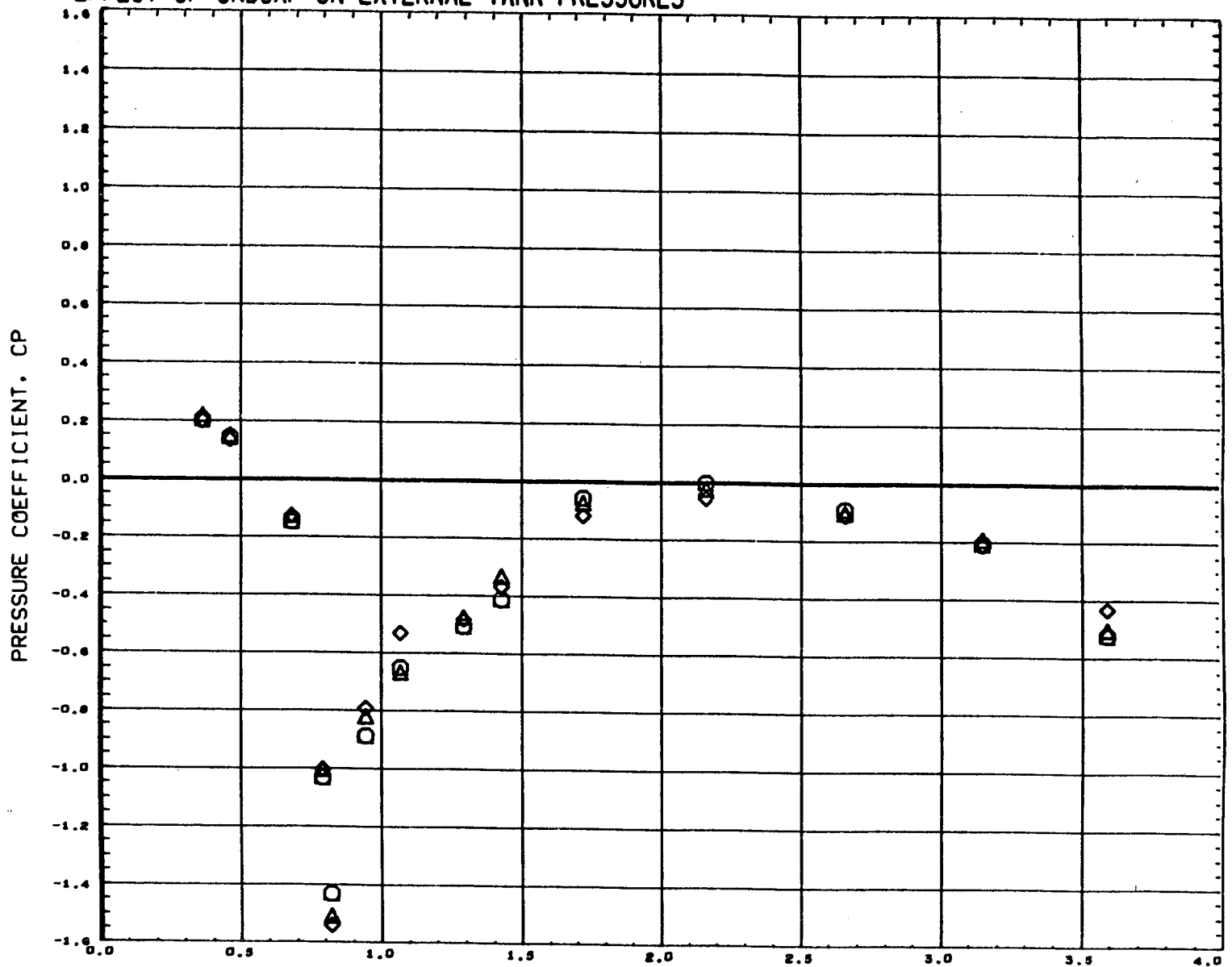
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	75.000	- 10.000	MACH	0.800	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7081T)

PAGE 707

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



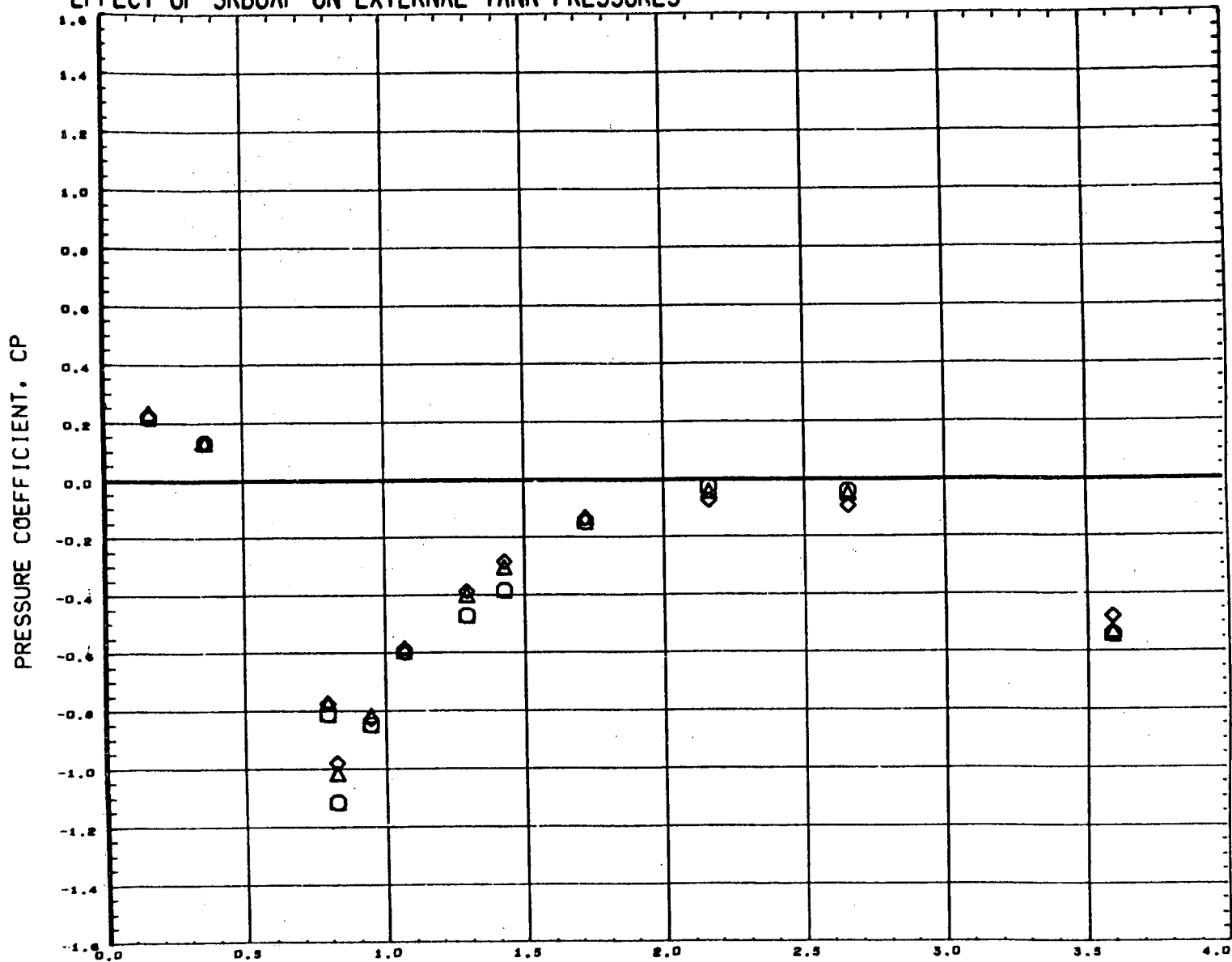
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	108.000	- 10.000	MACH	0.800	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7081T)

PAGE 708

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	126.000	- 10.000
△	0.030		
◇	0.100		

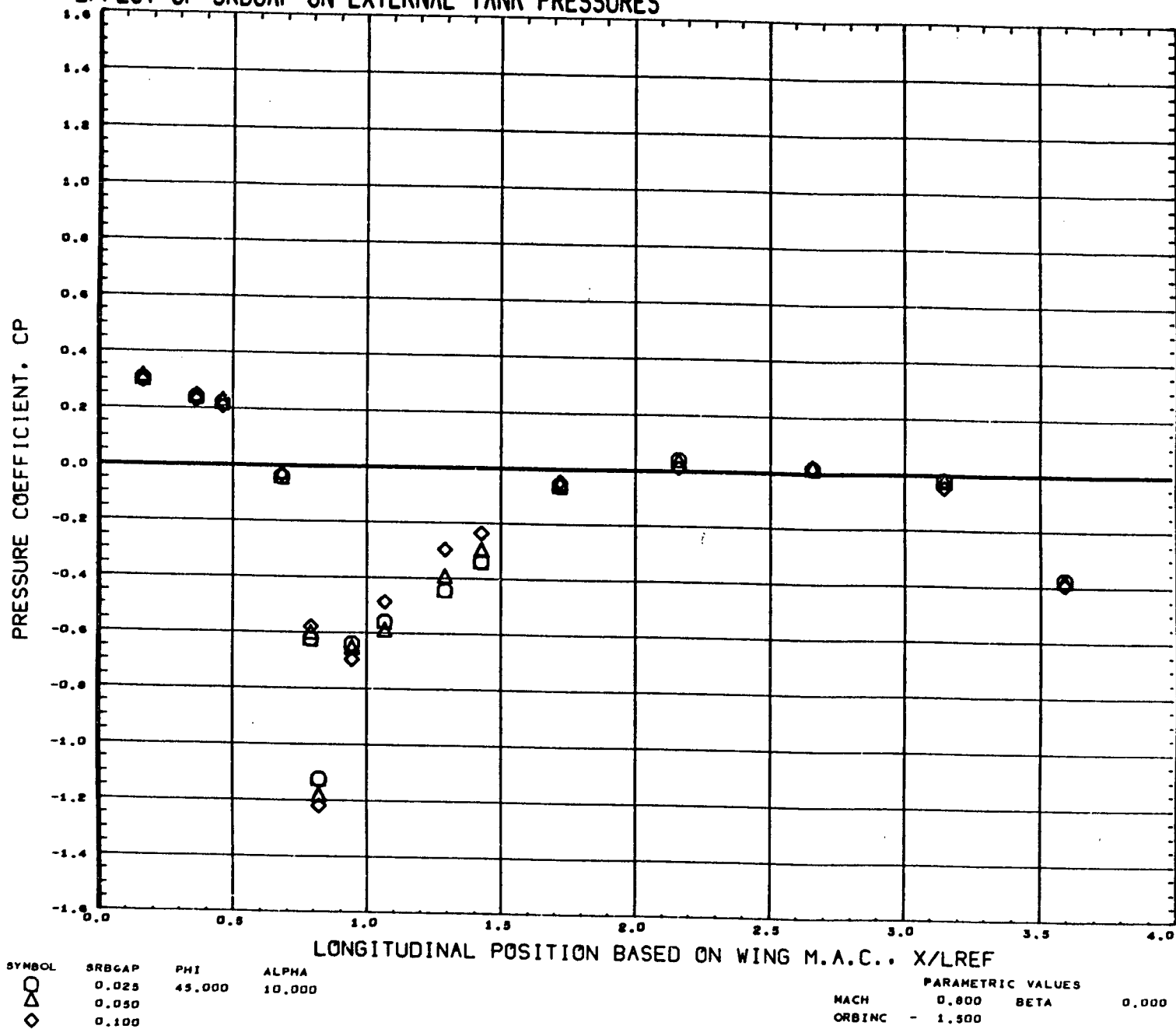
PARAMETRIC VALUES		
MACH	0.800	BETA
ORBINC	- 1.500	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R7081T)

PAGE 709

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES

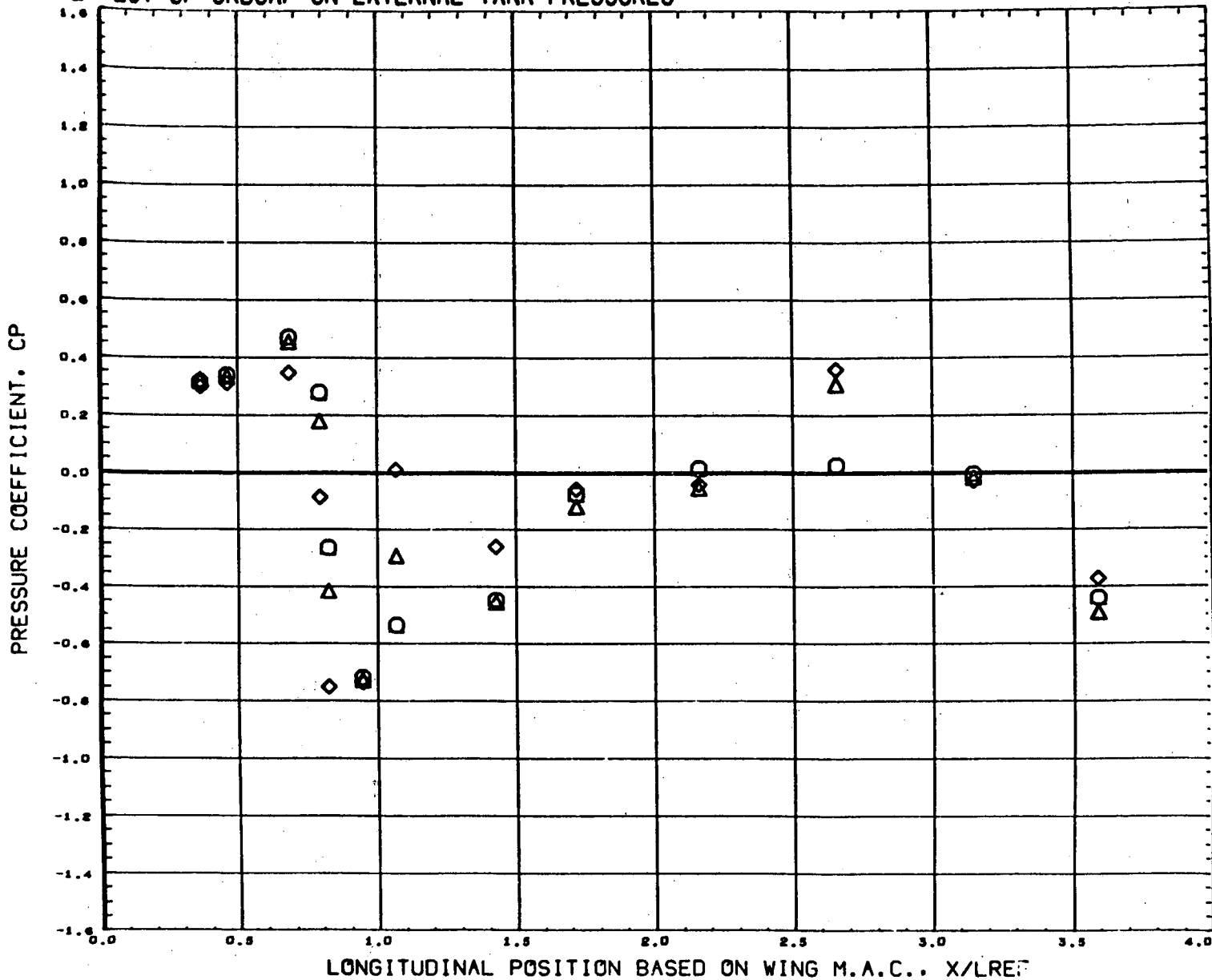


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7081T)

PAGE 710

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



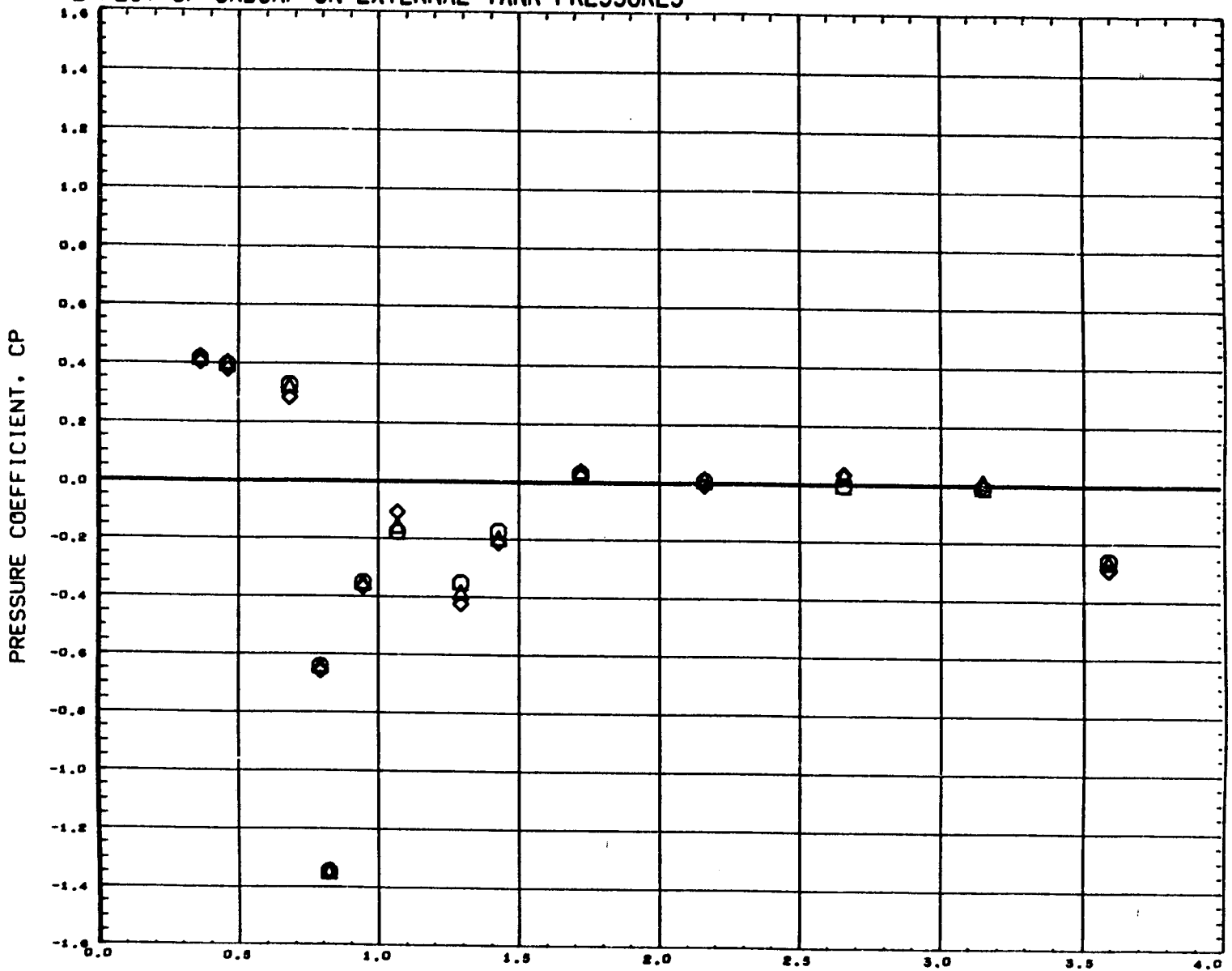
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	75.000	10.000	MACH	0.600	BETA 0.000
△	0.050			ORBINC	- 1.500	
◇	0.100					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7081T)

PAGE 711

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	108.000	10.000	MACH	0.600	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

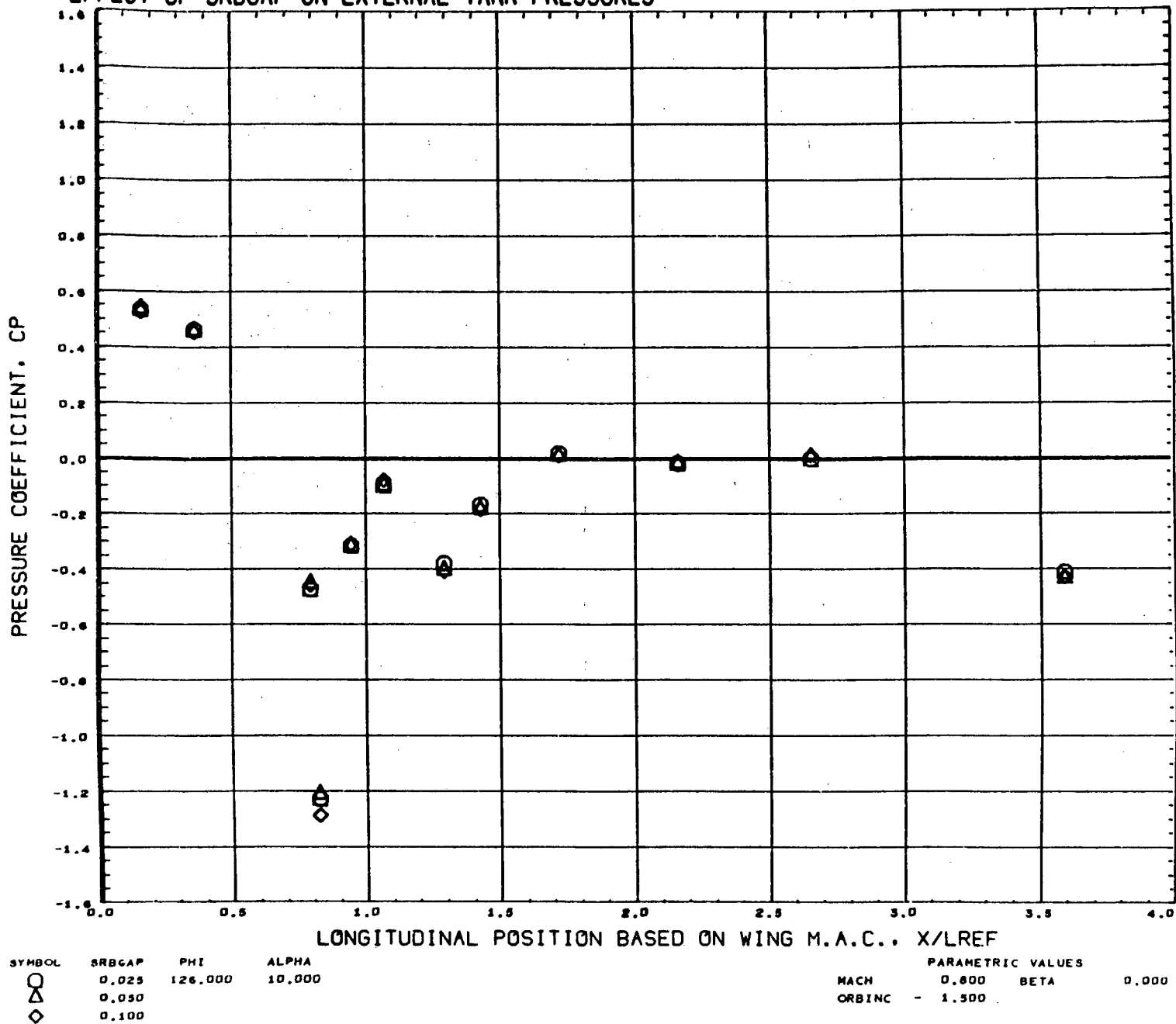
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/G ABORT SRM. T1S101 (R7081T)

PAGE 712

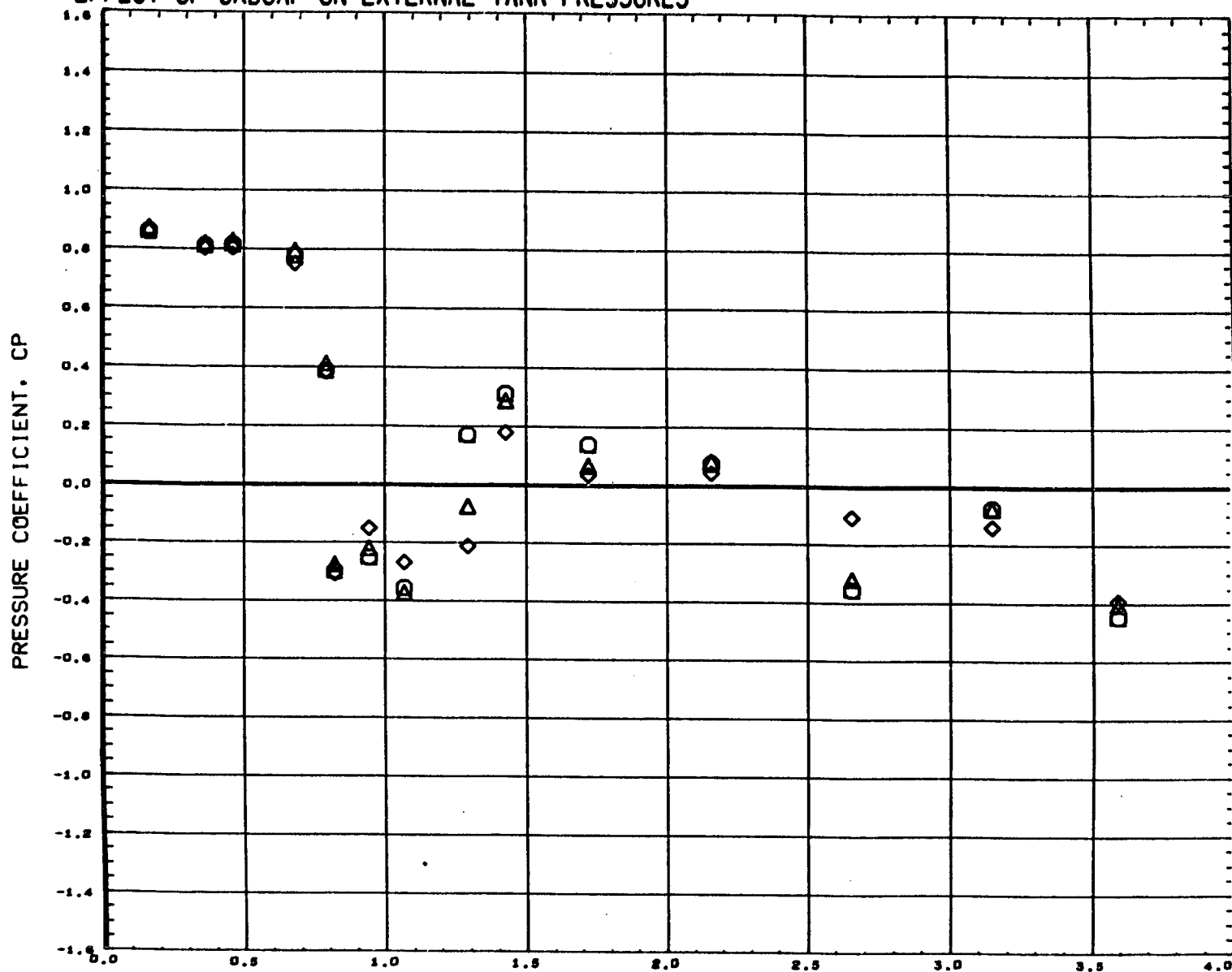
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EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



REFERENCE FILE

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



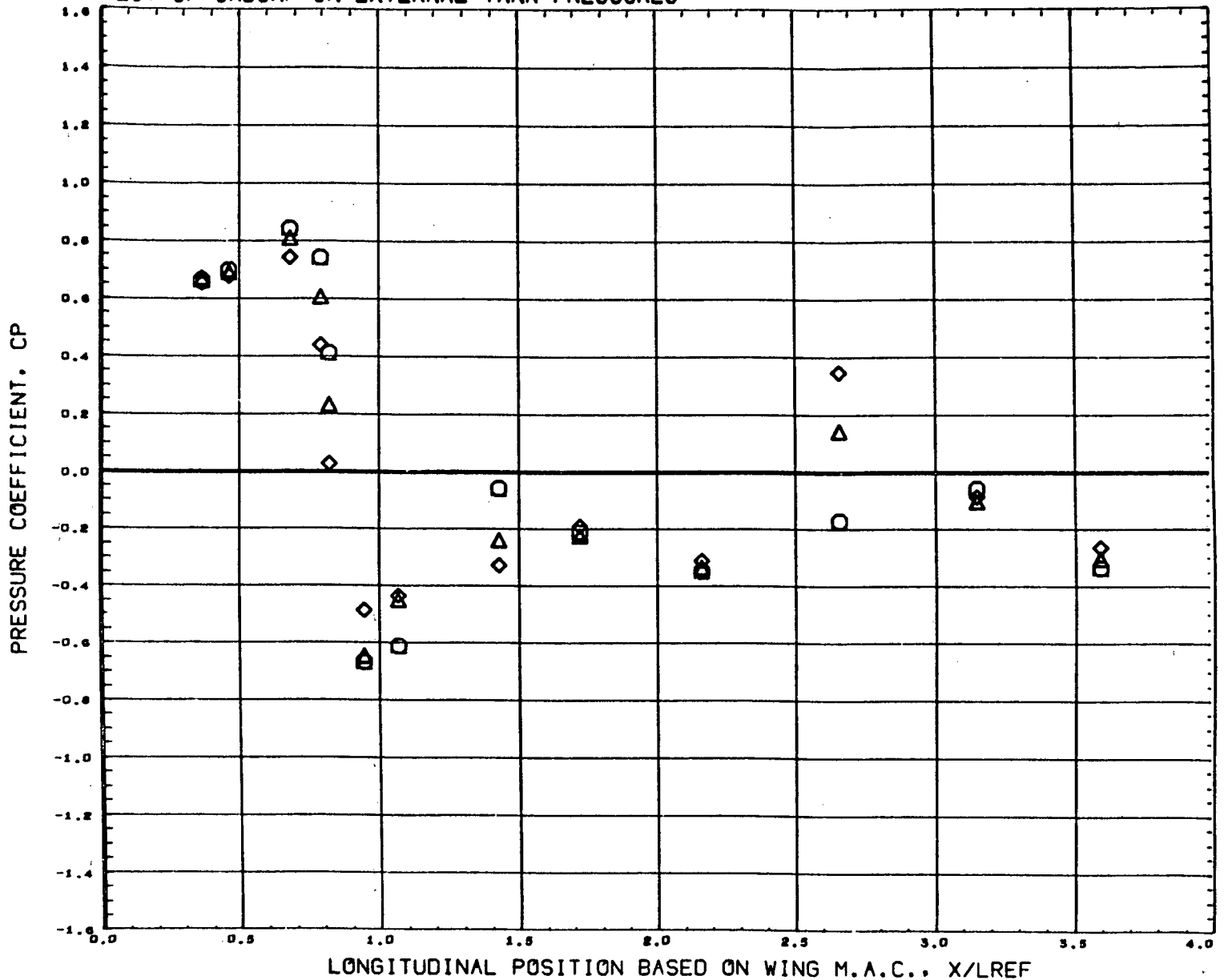
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	45.000	- 10.000	MACH	1.200	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R7084T)

PAGE 714

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



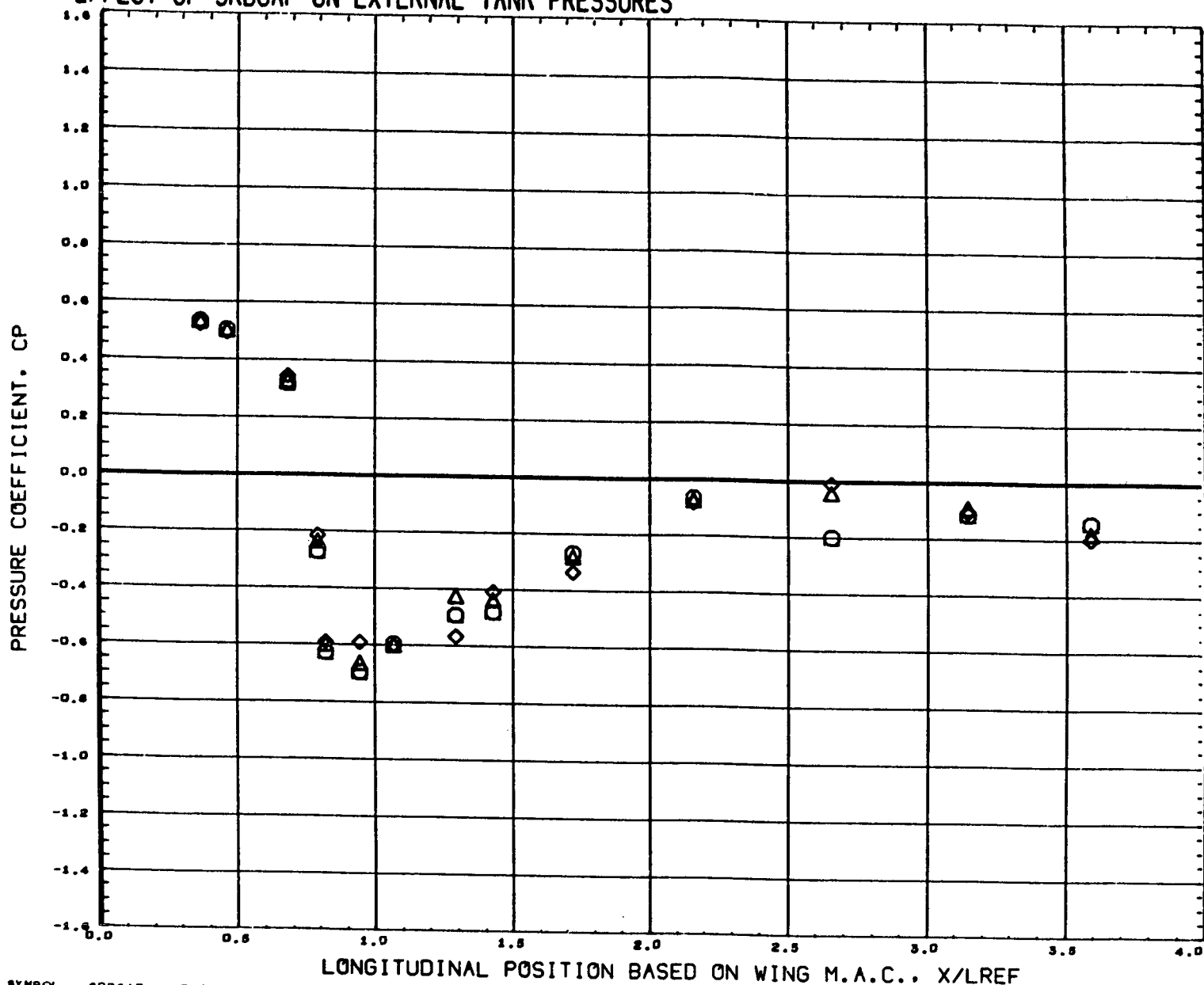
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	75.000	- 10.000	MACH	1.200	BETA 0.000
△	0.050			ORBINC	- 1.500	
◇	0.100					

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 715

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL SRBGAP PHI ALPHA
 ○ 0.025 108.000 - 10.000
 △ 0.050
 ◇ 0.100

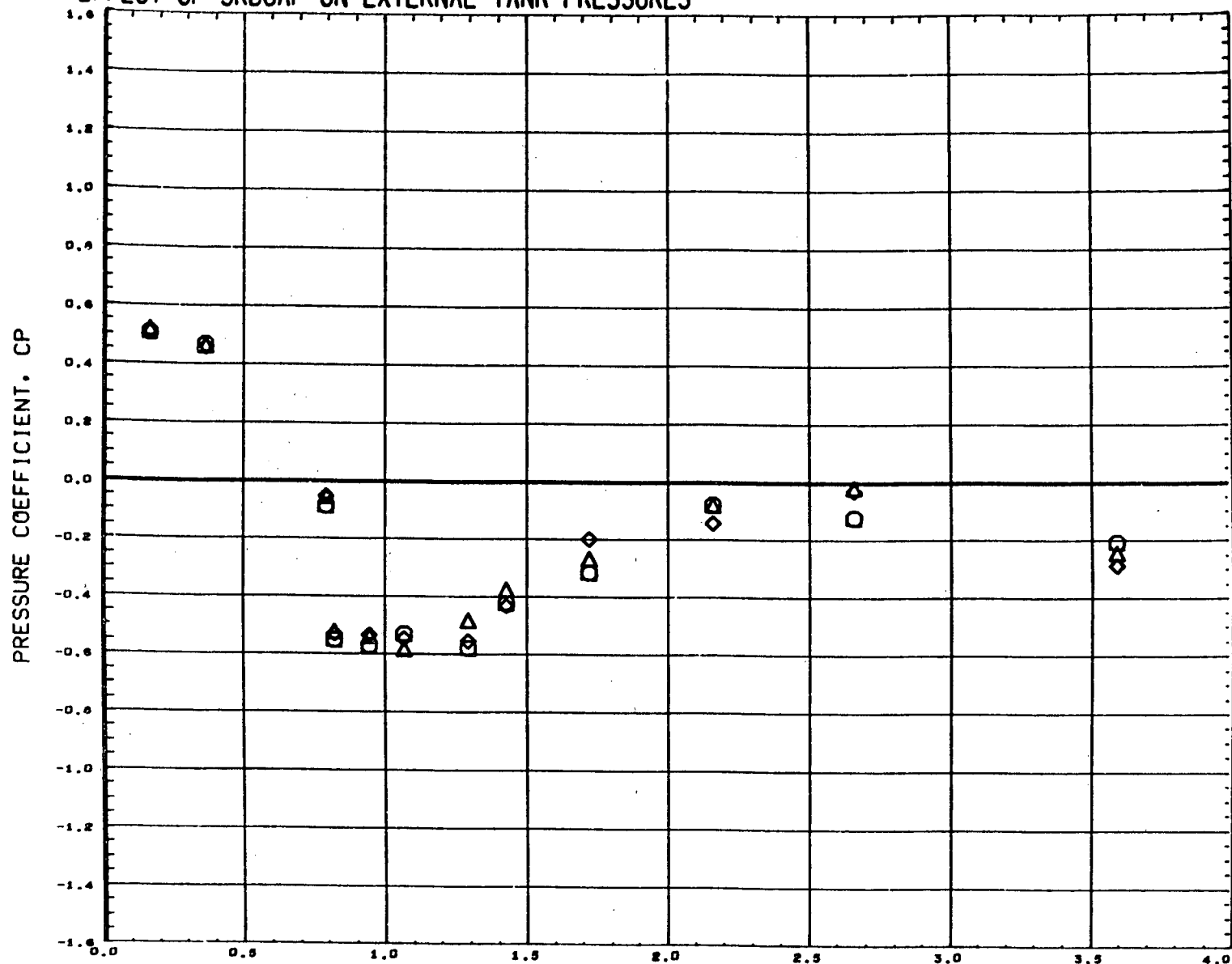
PARAMETRIC VALUES
 MACH 1.200 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 716

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	126.000	- 10.000
△	0.050		
◇	0.100		

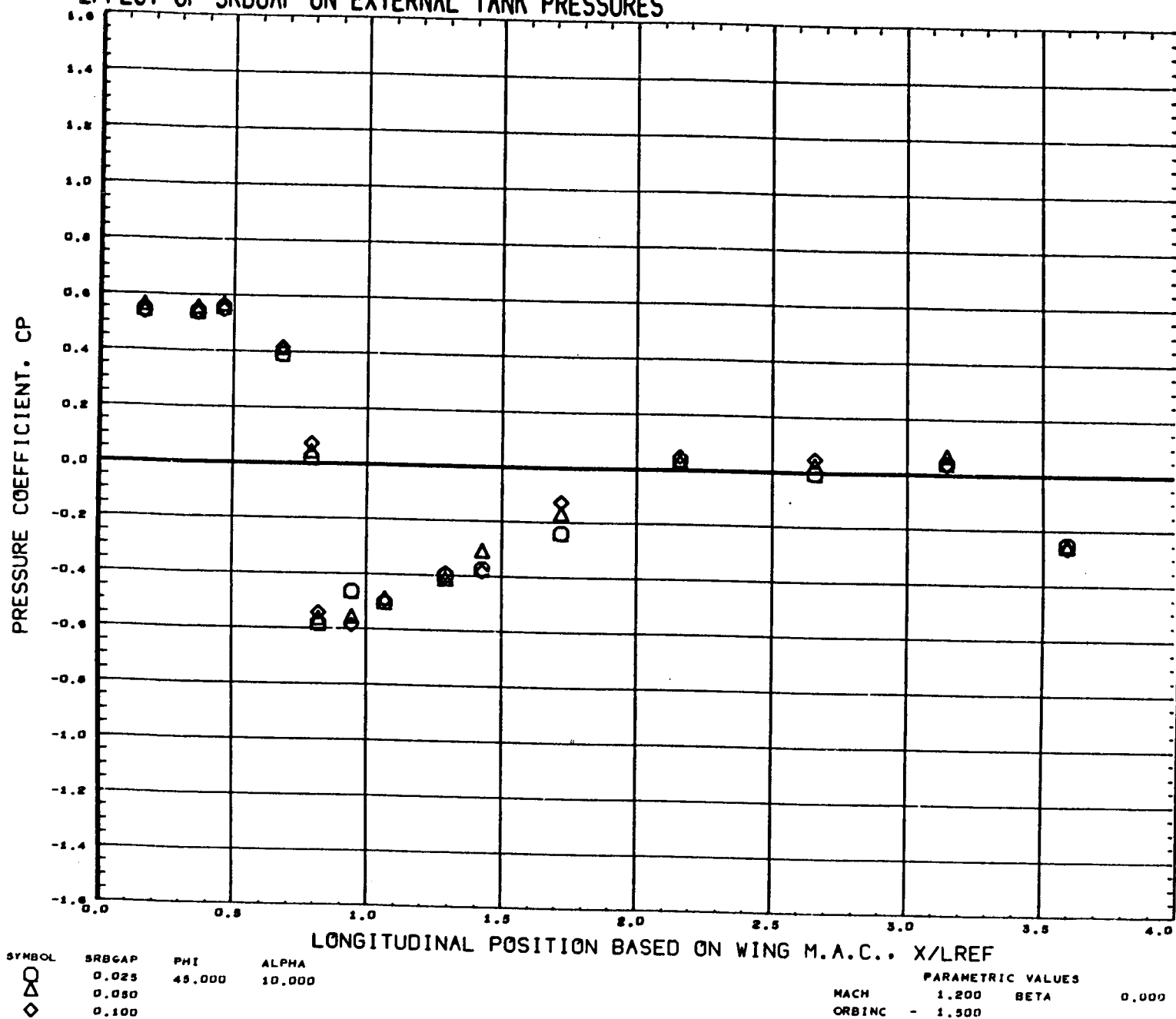
PARAMETRIC VALUES		
MACH	1.200	BETA 0.000
ORBINC	- 1.500	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 717

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES

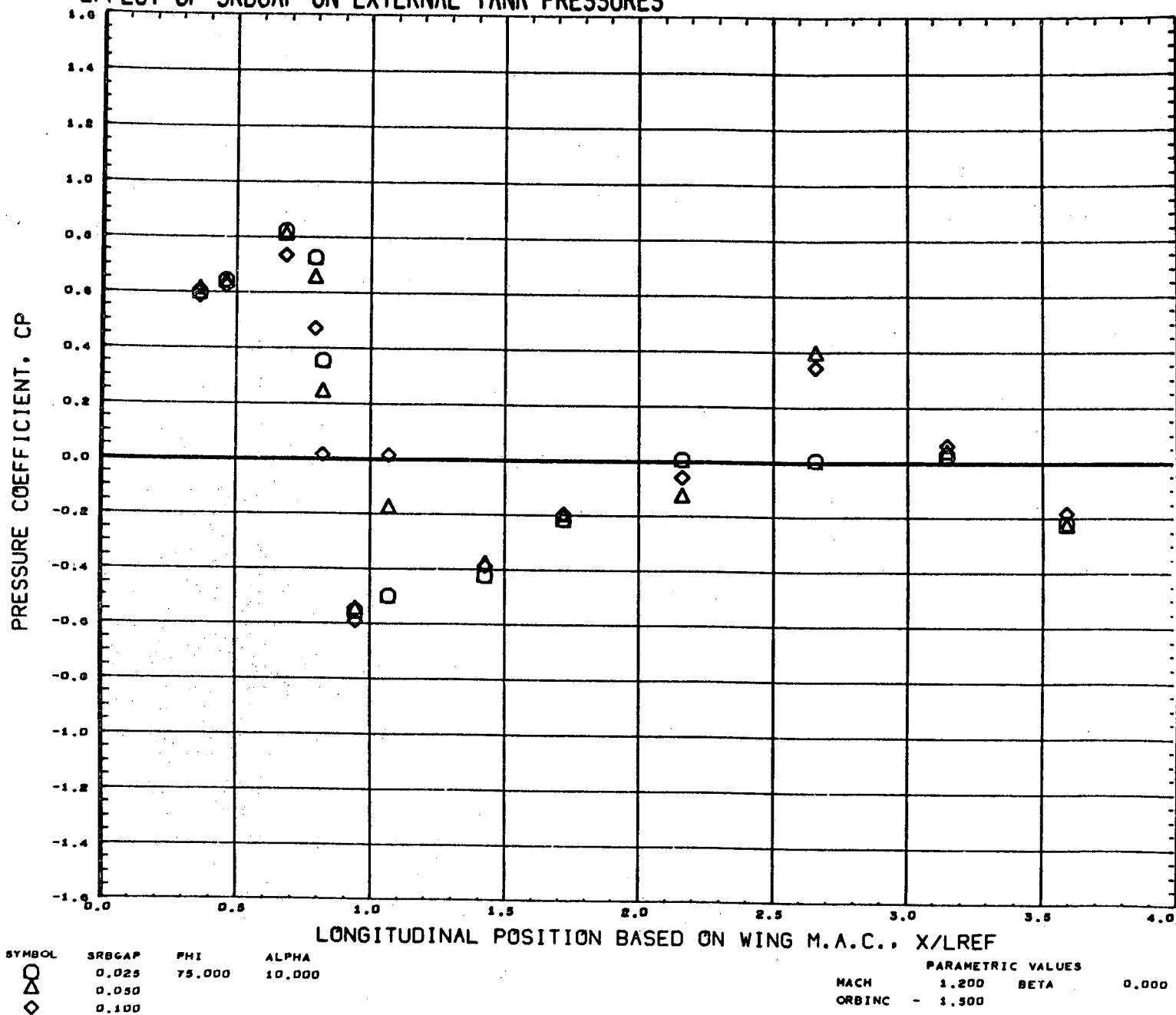


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 718

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES

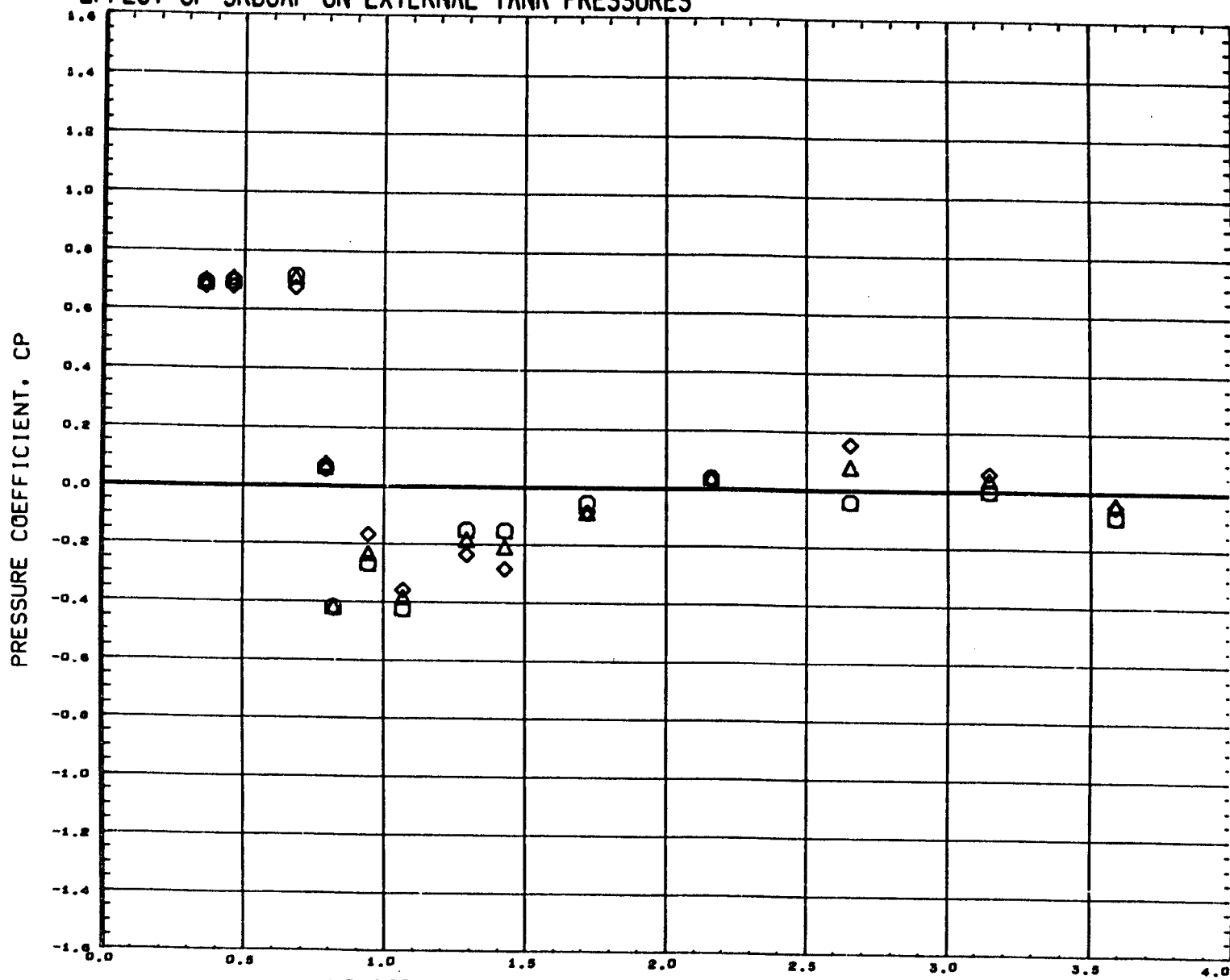


REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 719

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL
 □ SRBGAP 0.025
 △ SRBGAP 0.050
 ◇ SRBGAP 0.100

LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

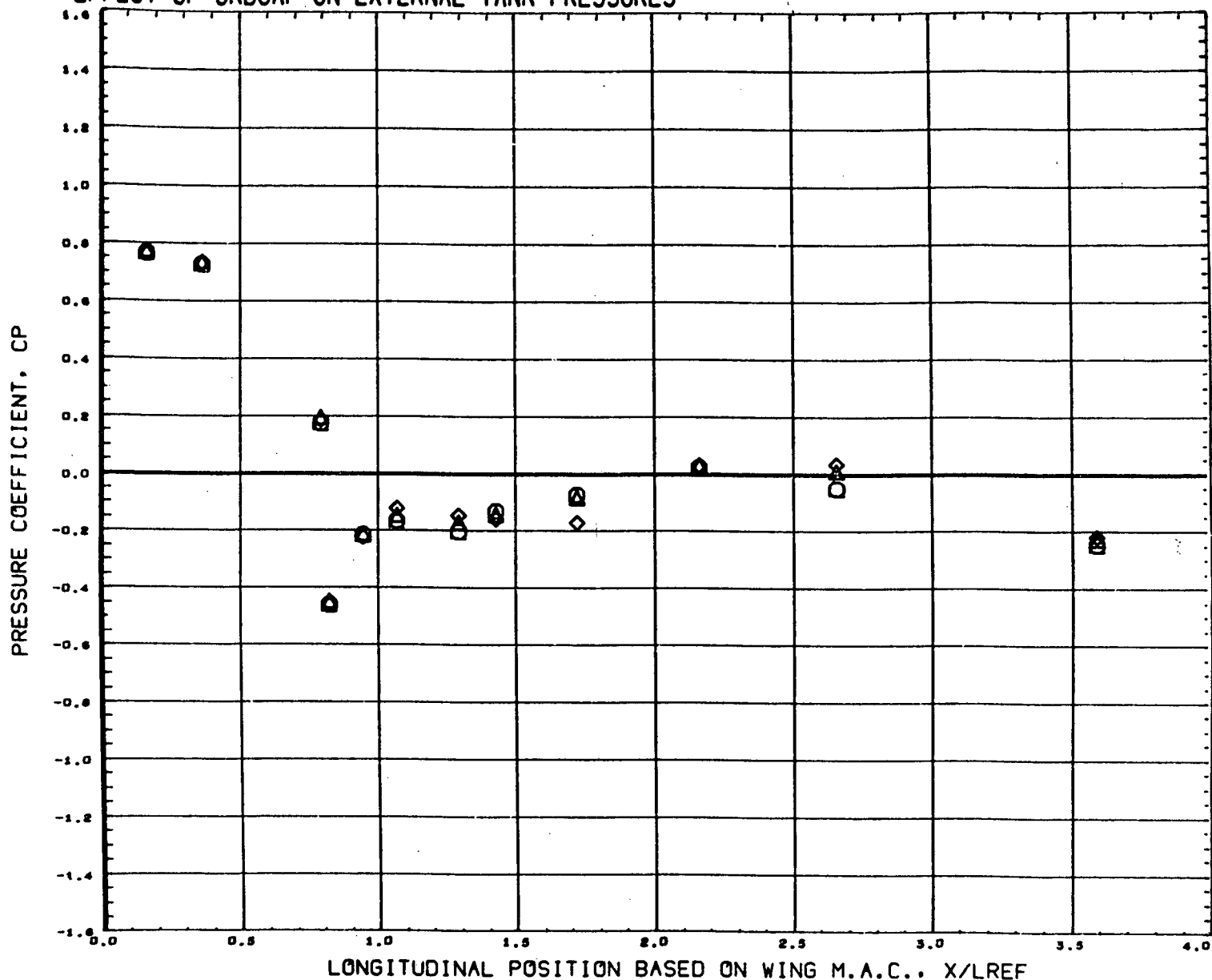
PARAMETRIC VALUES
 MACH 1.200 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 720

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	126.000	10.000
△	0.050		
◇	0.100		

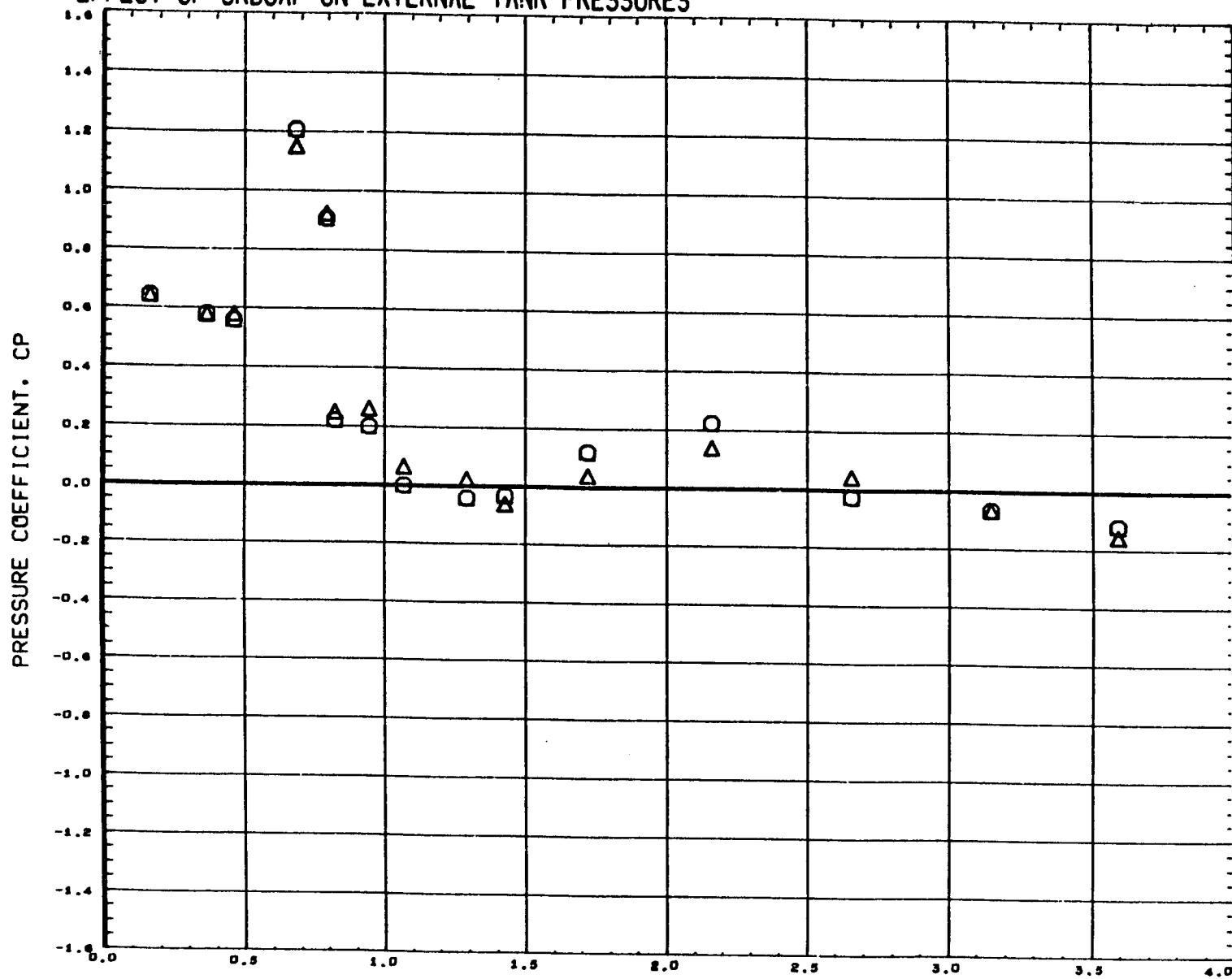
PARAMETRIC VALUES			
MACH	1.200	BETA	0.000
ORBINC	- 1.500		

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084T)

PAGE 721

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL SRBGAP PHI ALPHA
 O 0.025 45.000 - 10.000
 Δ 0.100

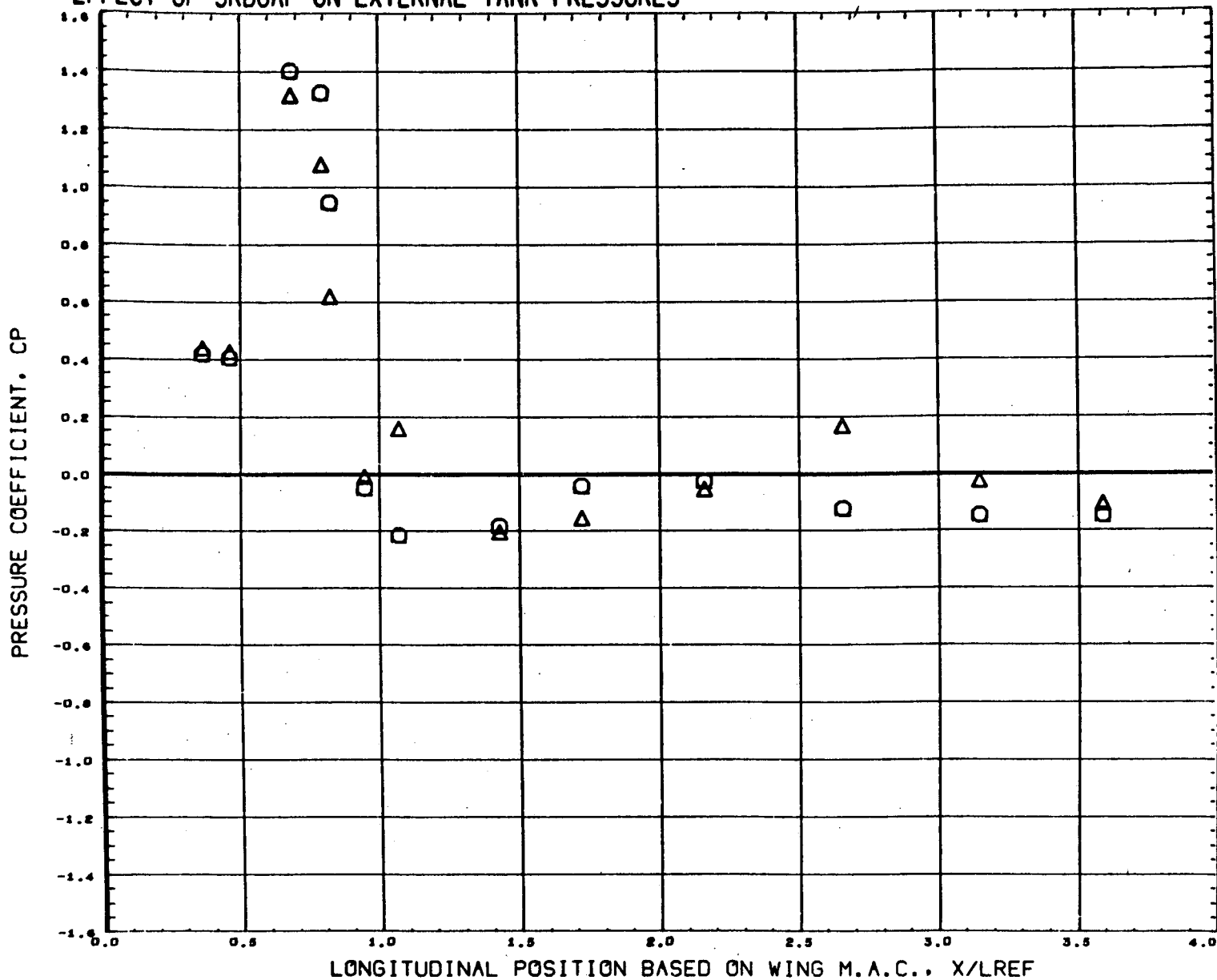
PARAMETRIC VALUES
 MACH 1.960 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R7086T)

PAGE 722

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL SRBGAP PHI ALPHA
 ○ 0.025 75.000 - 10.000
 △ 0.100

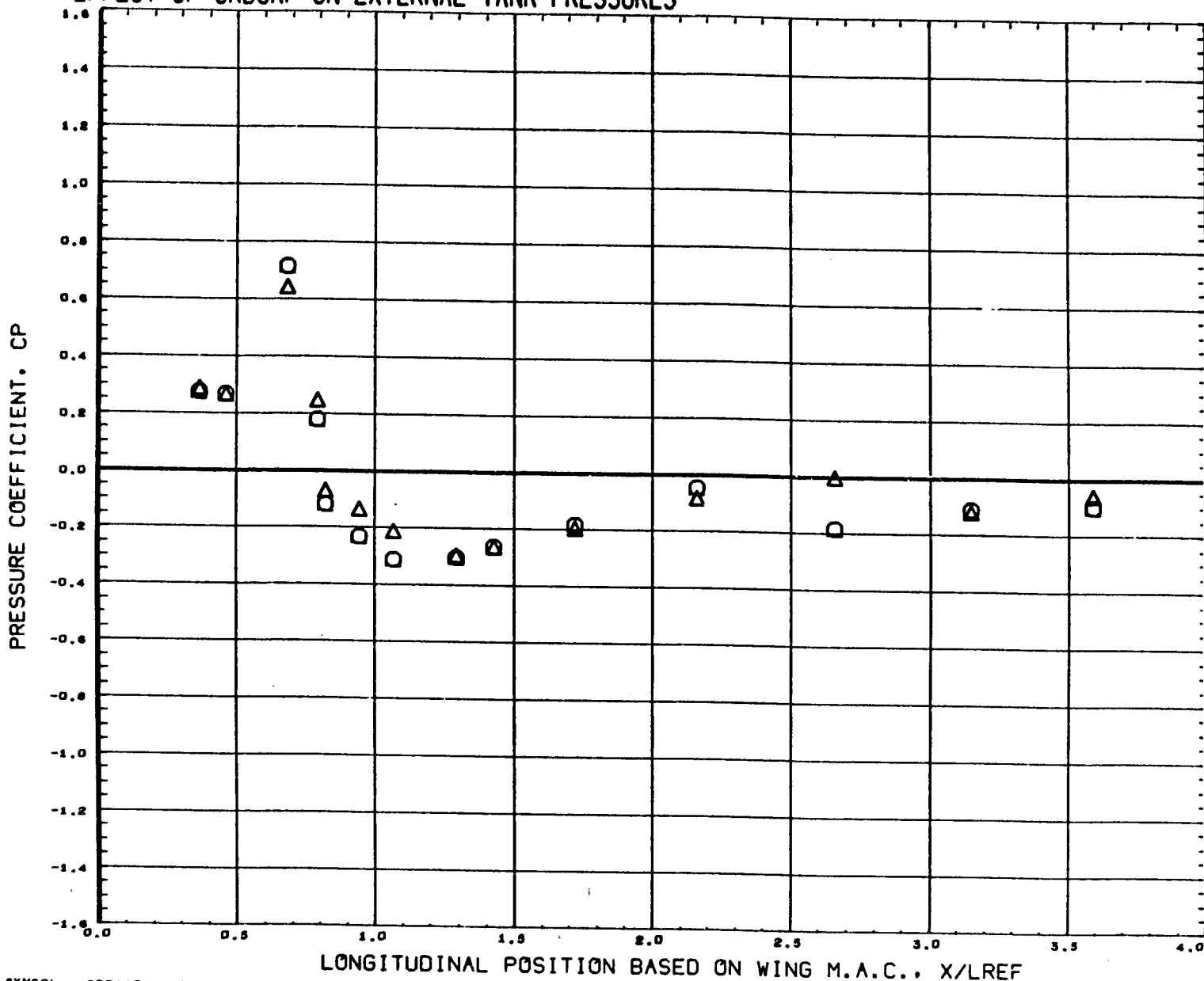
PARAMETRIC VALUES
 MACH 1.960 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R7086T)

PAGE 723

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL SRBGAP PHI ALPHA
 ○ 0.025 100.000 - 10.000
 △ 0.100

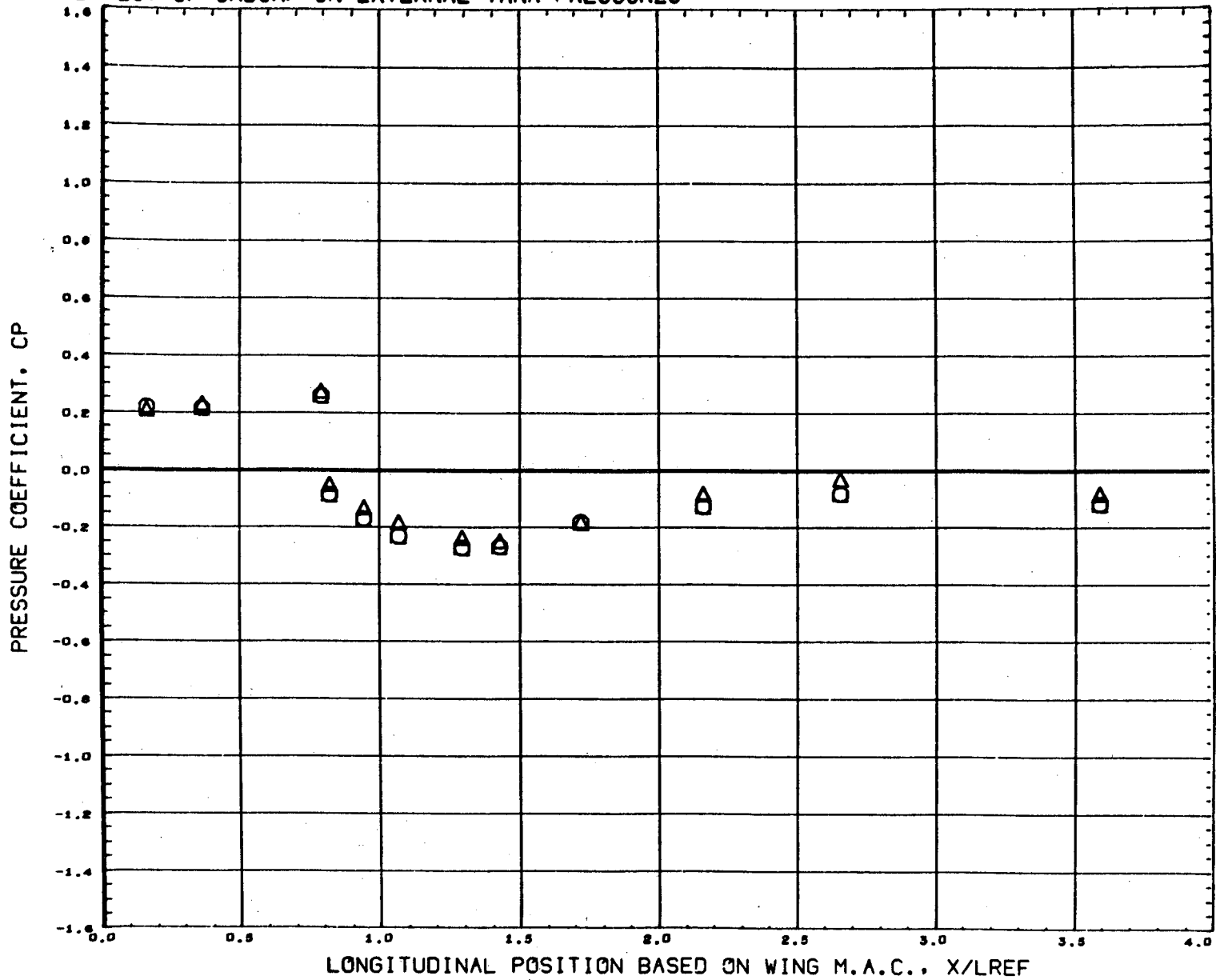
PARAMETRIC VALUES
 MACH 1.960 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R7086T)

PAGE 724

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



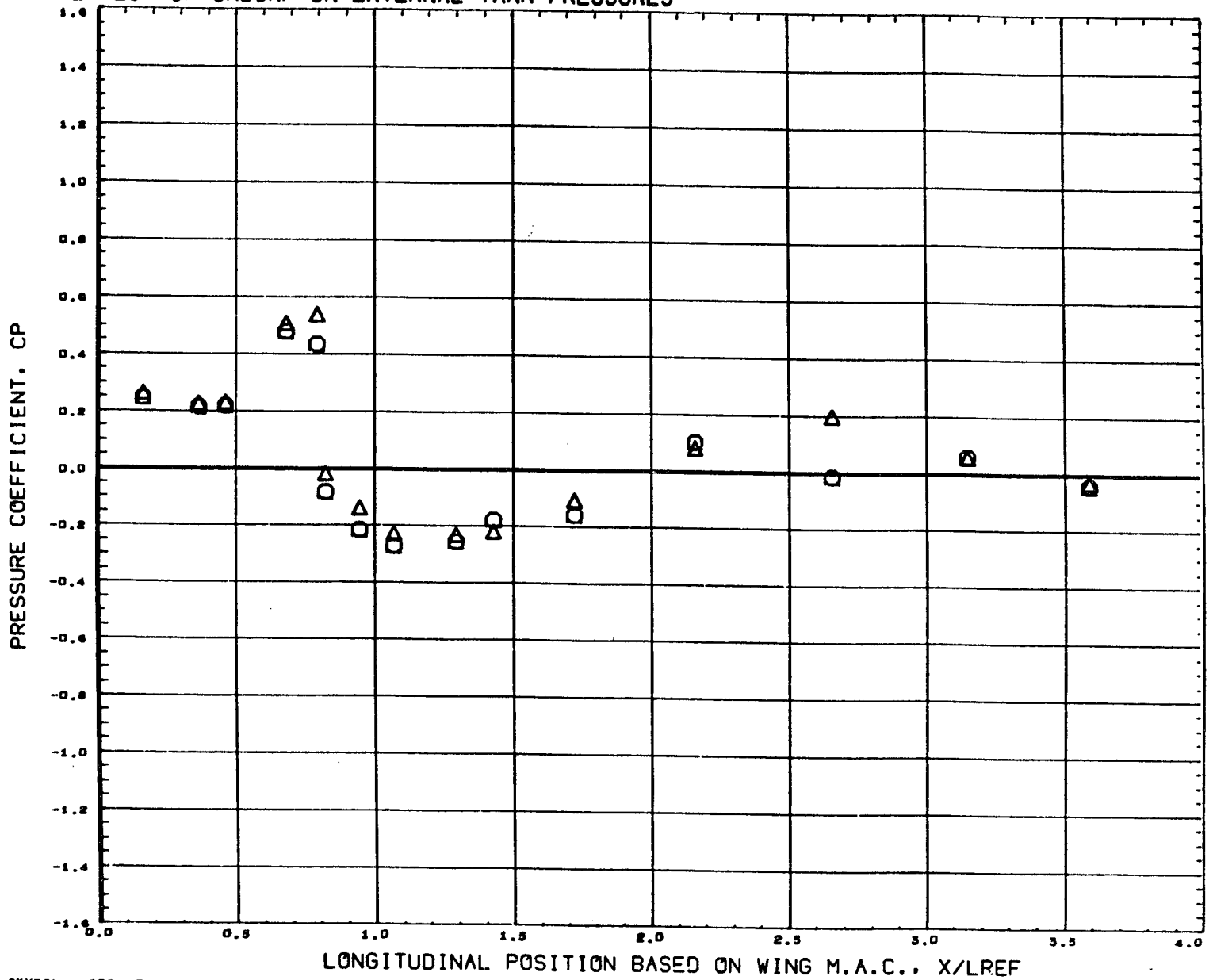
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	126.000	- 10.000	MACH	1.960	BETA 0.000
△	0.100			ORBINC	- 1.500	

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7086T)

PAGE 725

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL SRBGAP PHI ALPHA
 O 0.025 45,000 10,000
 Δ 0.100

PARAMETRIC VALUES
 MACH 1.960 BETA 0.000
 ORBINC - 1.500

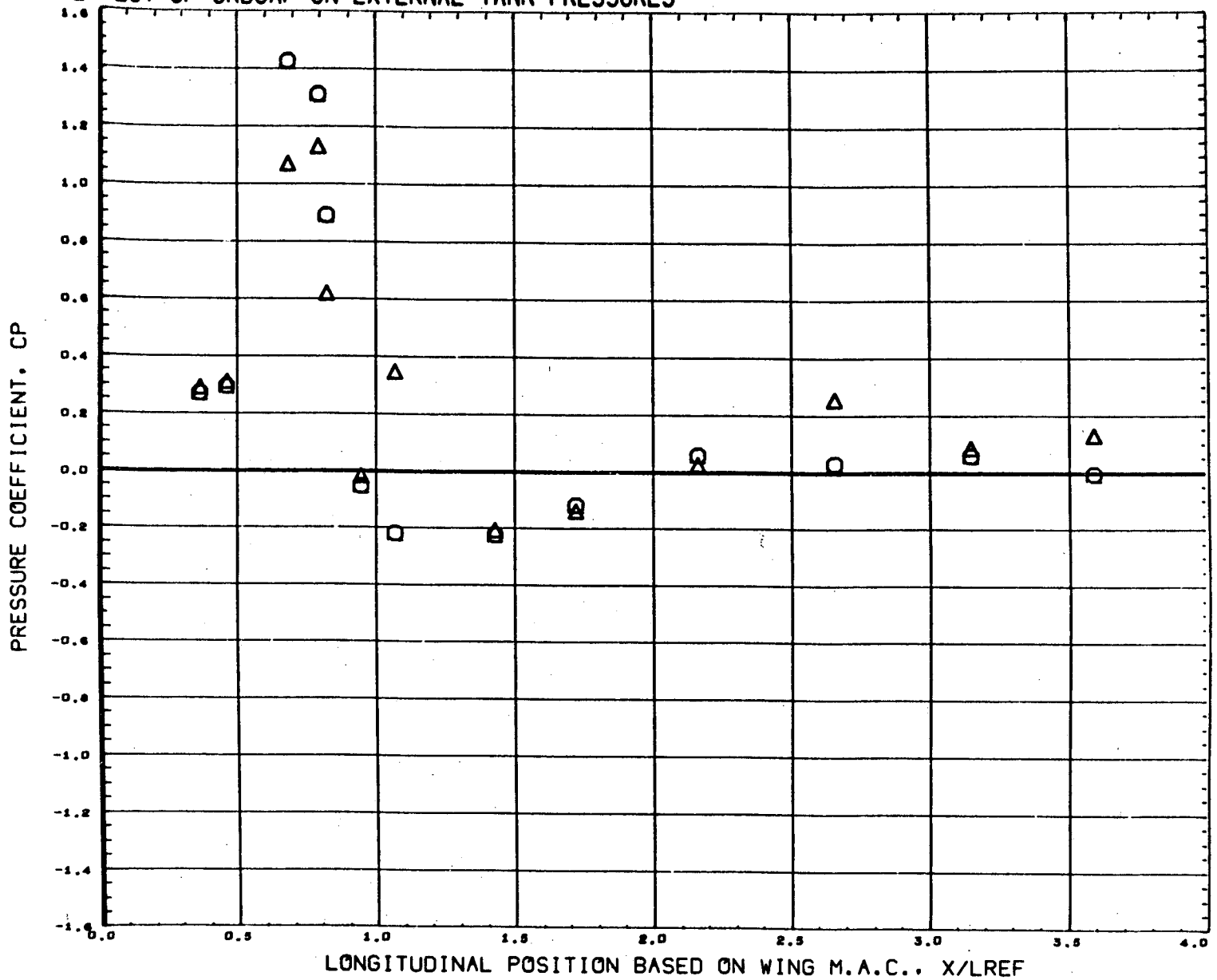
REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7086T)

PAGE 726

G

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL SRBGAP PHI ALPHA
 O 0.025 75.000 10.000
 Δ 0.100

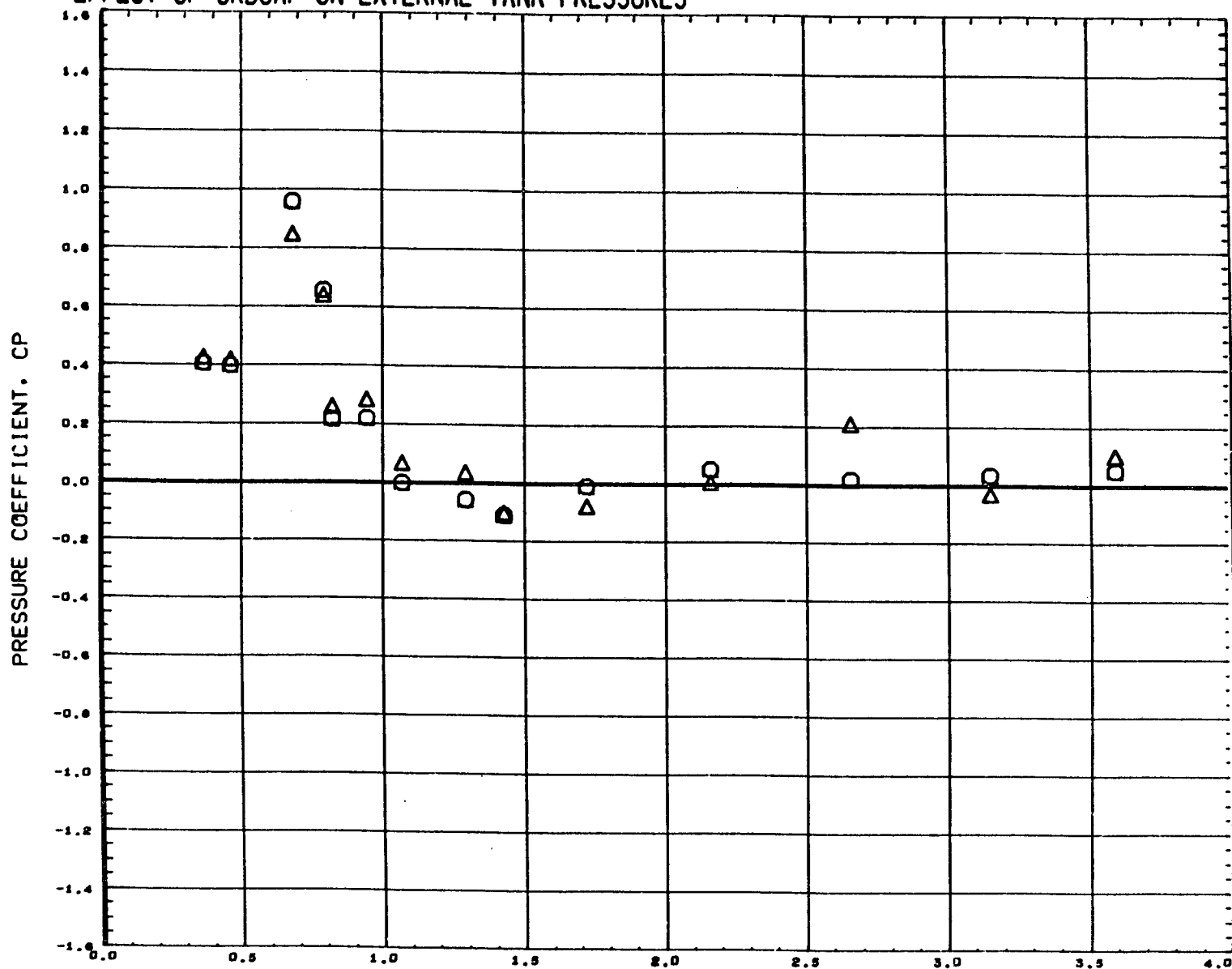
PARAMETRIC VALUES
 MACH 1.960 BETA 0.000
 ORBINC - 1.500

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (R7086T)

PAGE 727

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

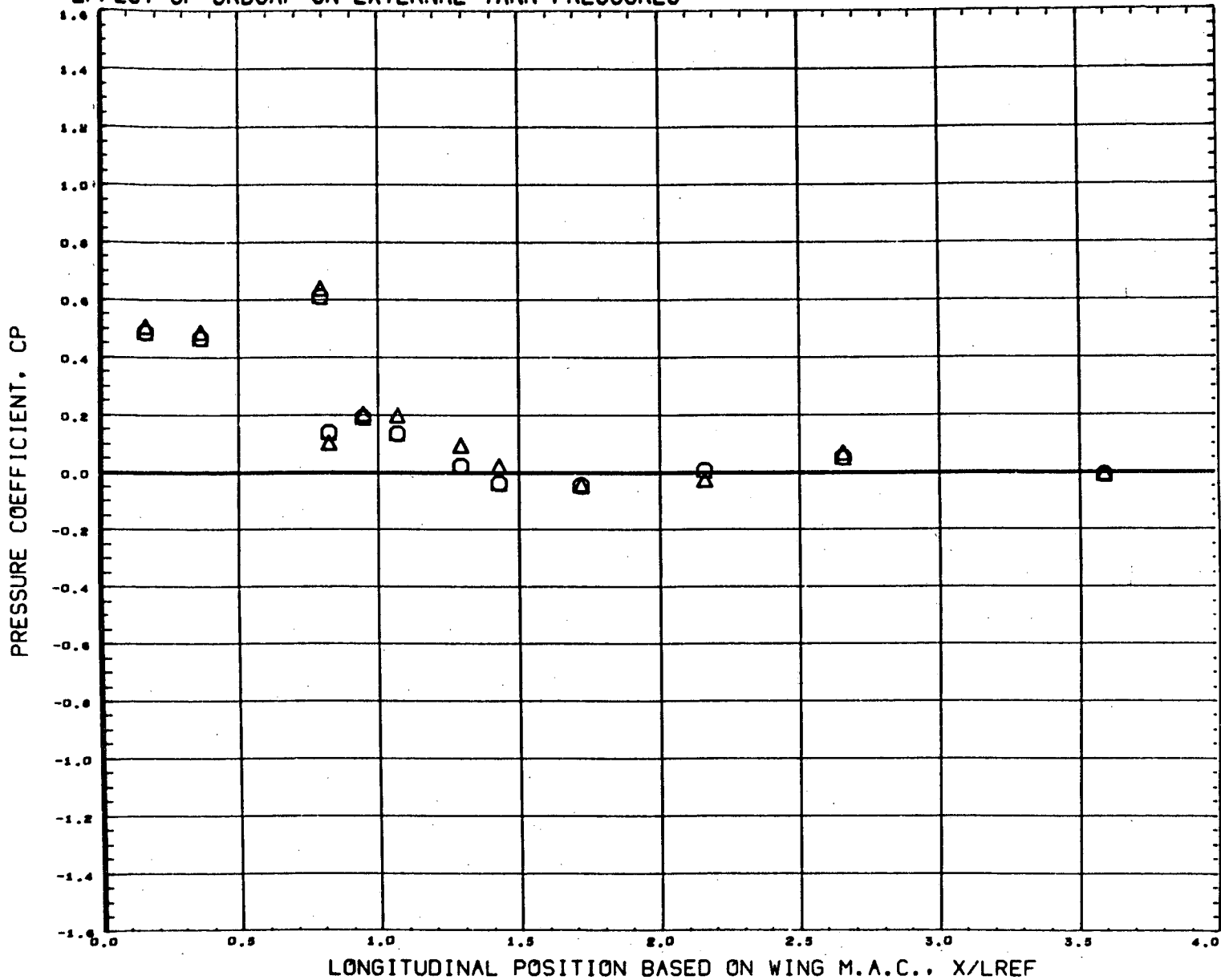
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	108.000	10.000	MACH	1.960	BETA
△	0.100			ORBINC	- 1.500	0.000

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7086T)

PAGE 728

EFFECT OF SRBGAP ON EXTERNAL TANK PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	126.000	10.000
△	0.100		

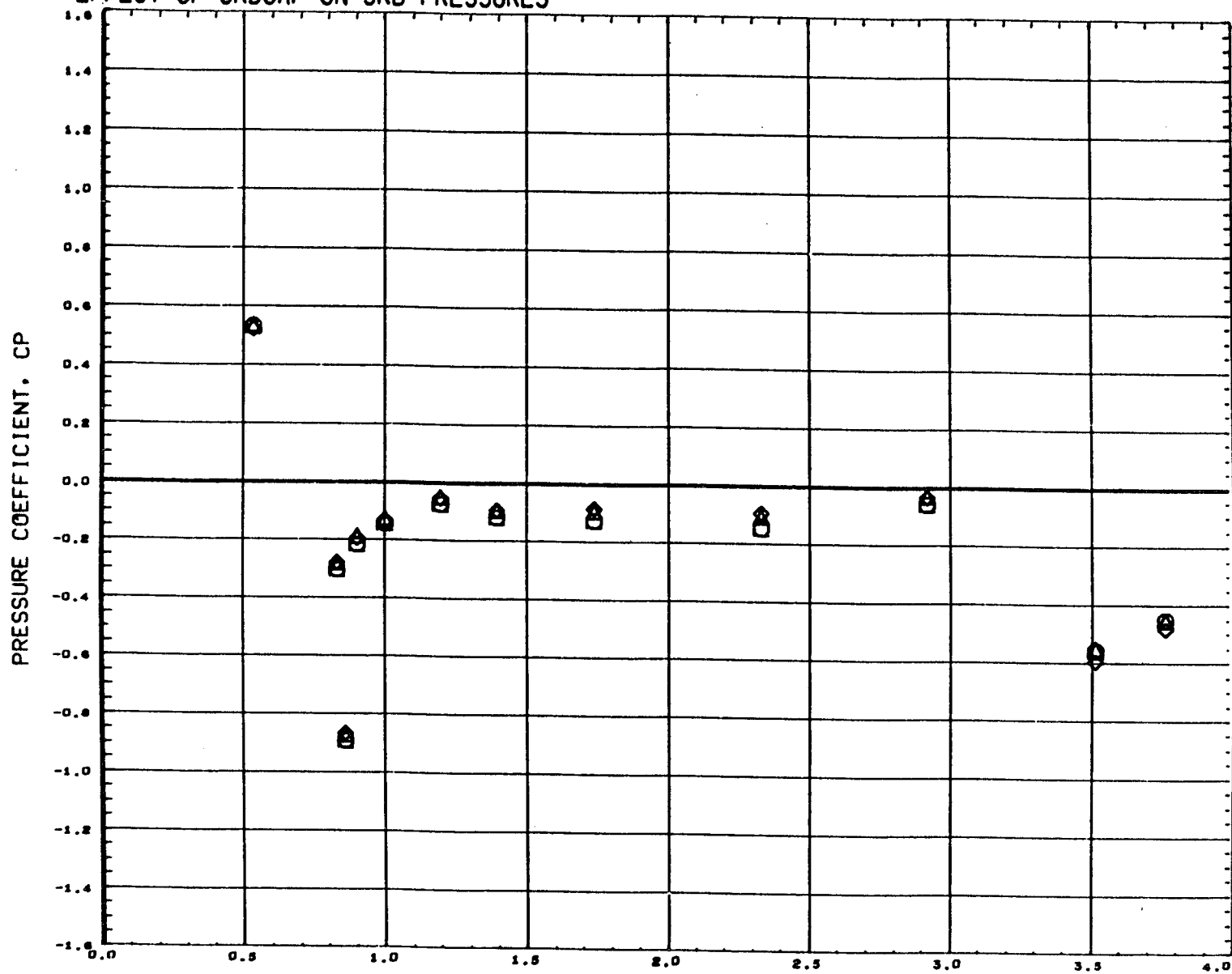
PARAMETRIC VALUES		
MACH	1.960	BETA
ORBINC	- 1.500	0.000

REFERENCE FILE

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7086T)

PAGE 729

EFFECT OF SRBGAP ON SRB PRESSURES

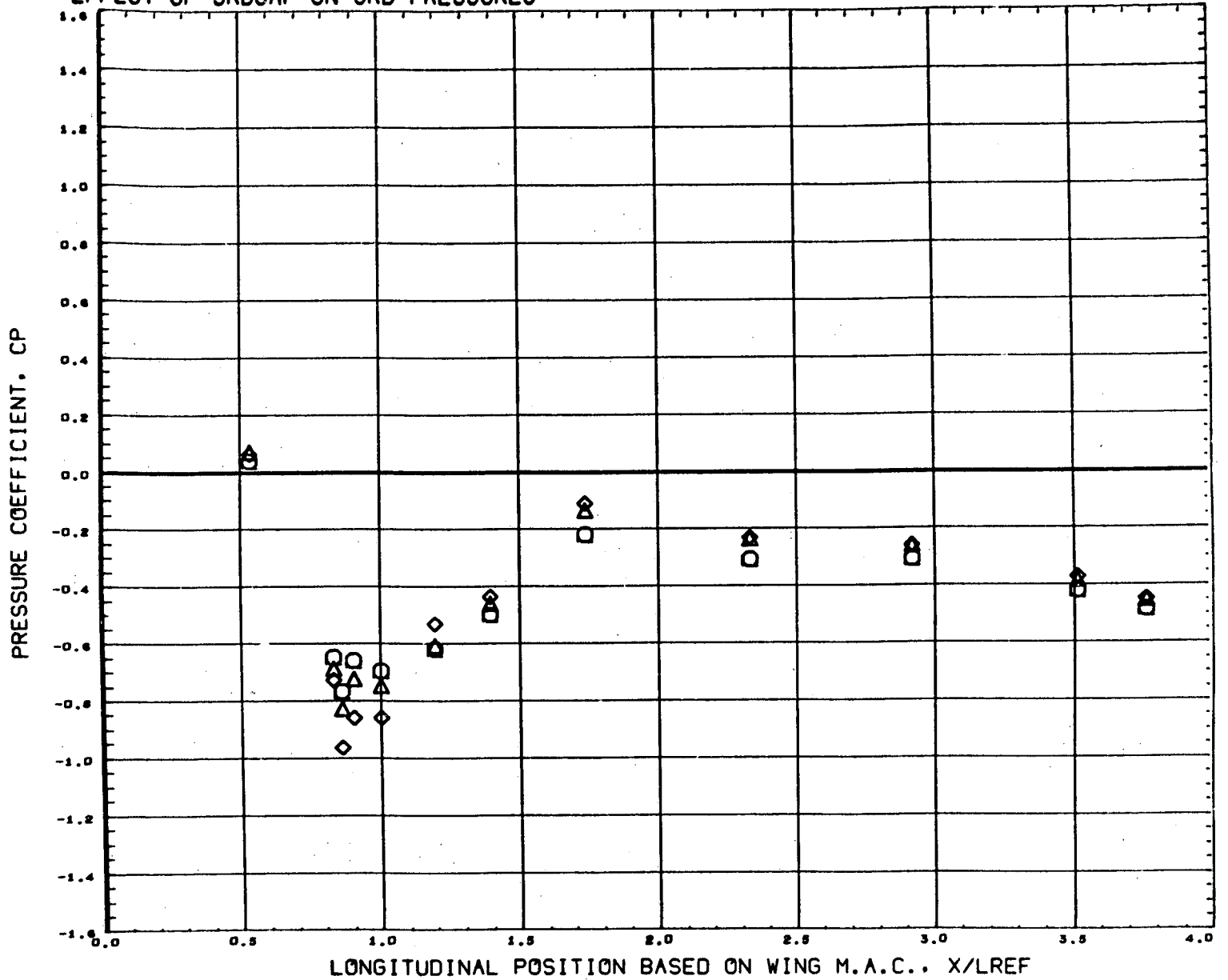


SYMBOL SRBGAP PHI ALPHA
 △ 0.025 0.000 - 10.000
 □ 0.030
 ◇ 0.100

PARAMETRIC VALUES
 MACH 0.800 BETA 0.000
 ORBINC - 1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

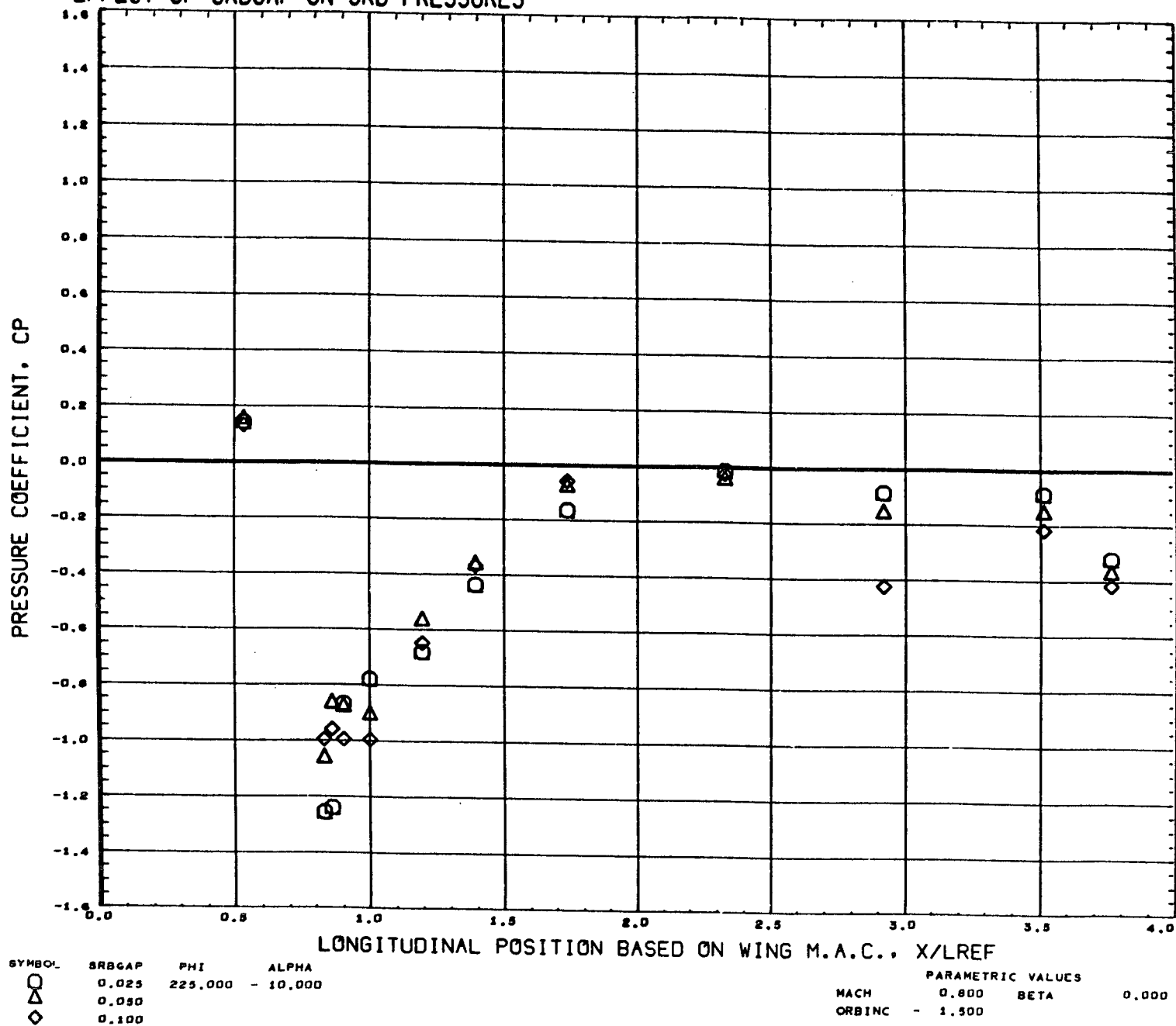
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	180.000	- 10.000	MACH	0.800	BETA 0.000
△	0.050			ORBINC	- 1.500	
◇	0.100					

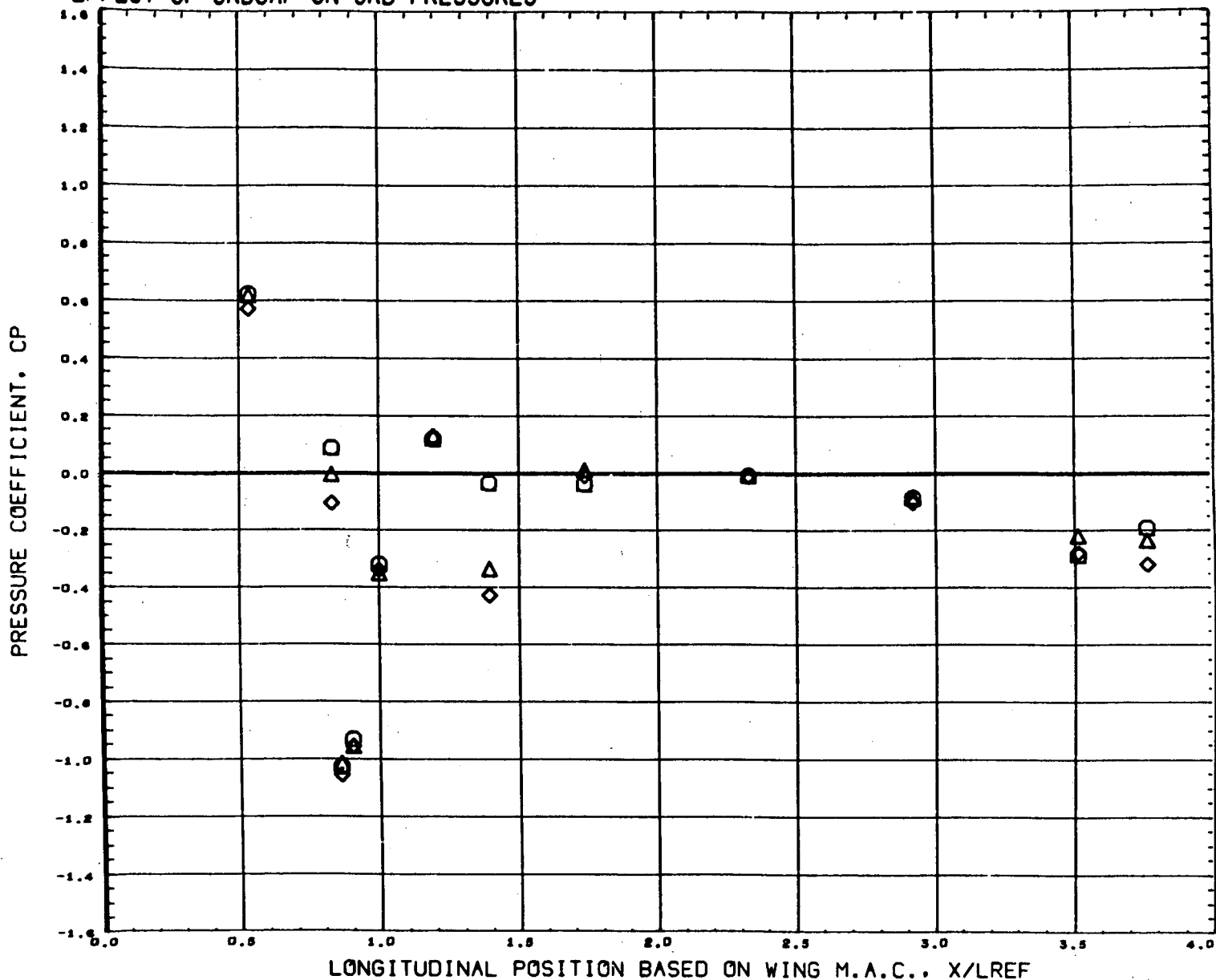
NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES



NOTE- SRB NOSE LOCATED AT X/LREF=.369

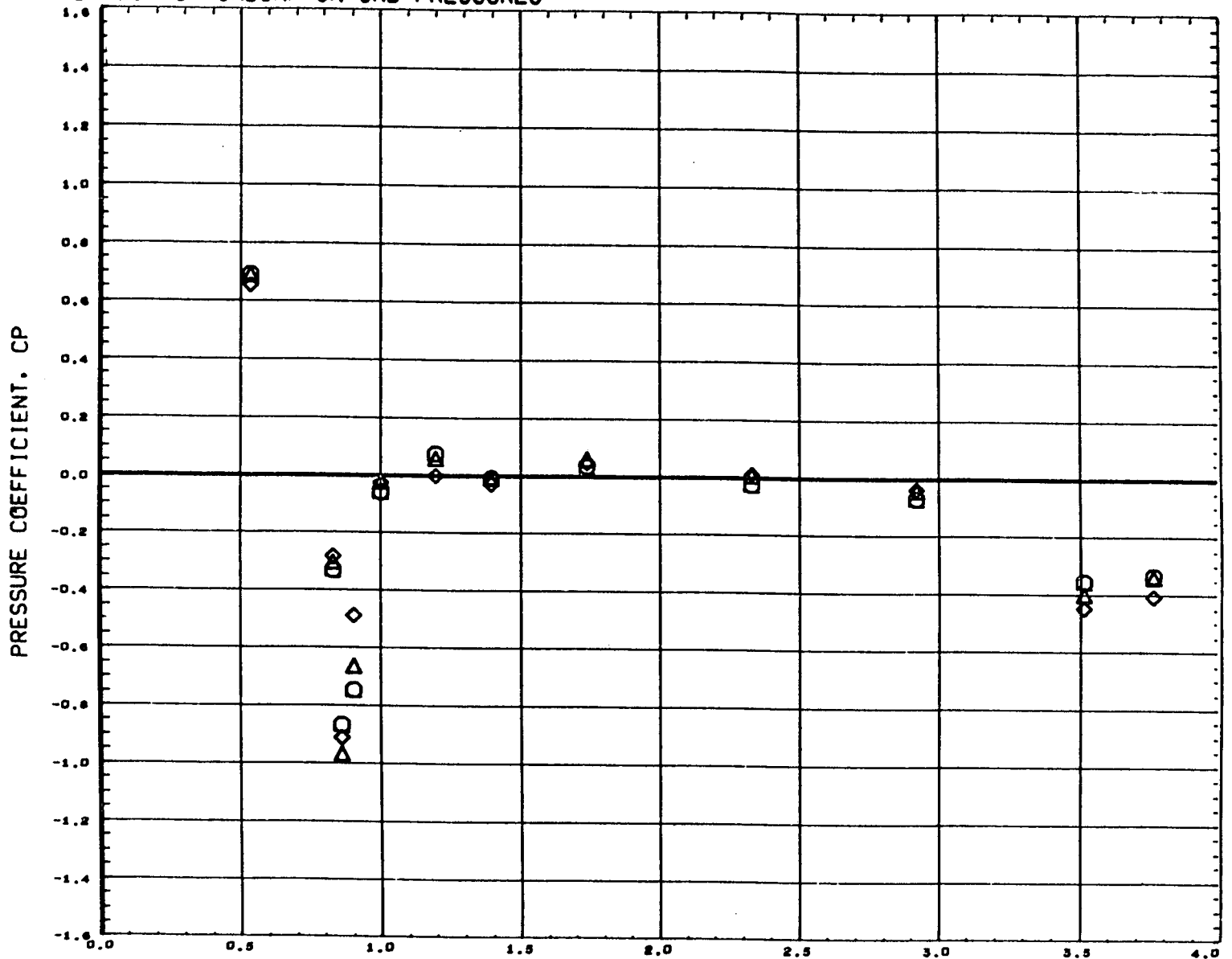
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
□	0.025	270.000	-10.000	MACH	0.800	BETA
△	0.050			ORBINC	1.500	0.000
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

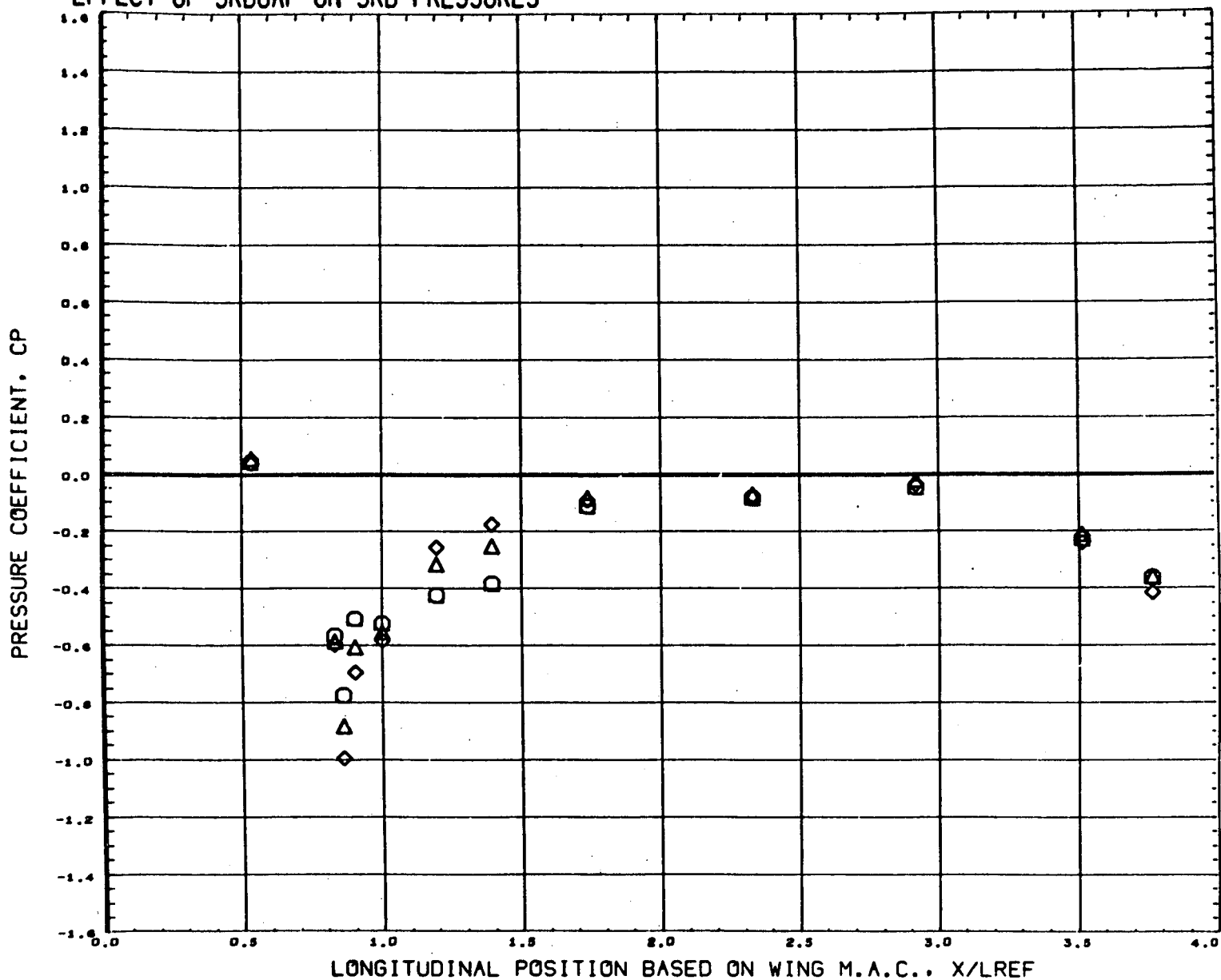
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
□	0.025	315.000	- 10.000	MACH	0.800	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

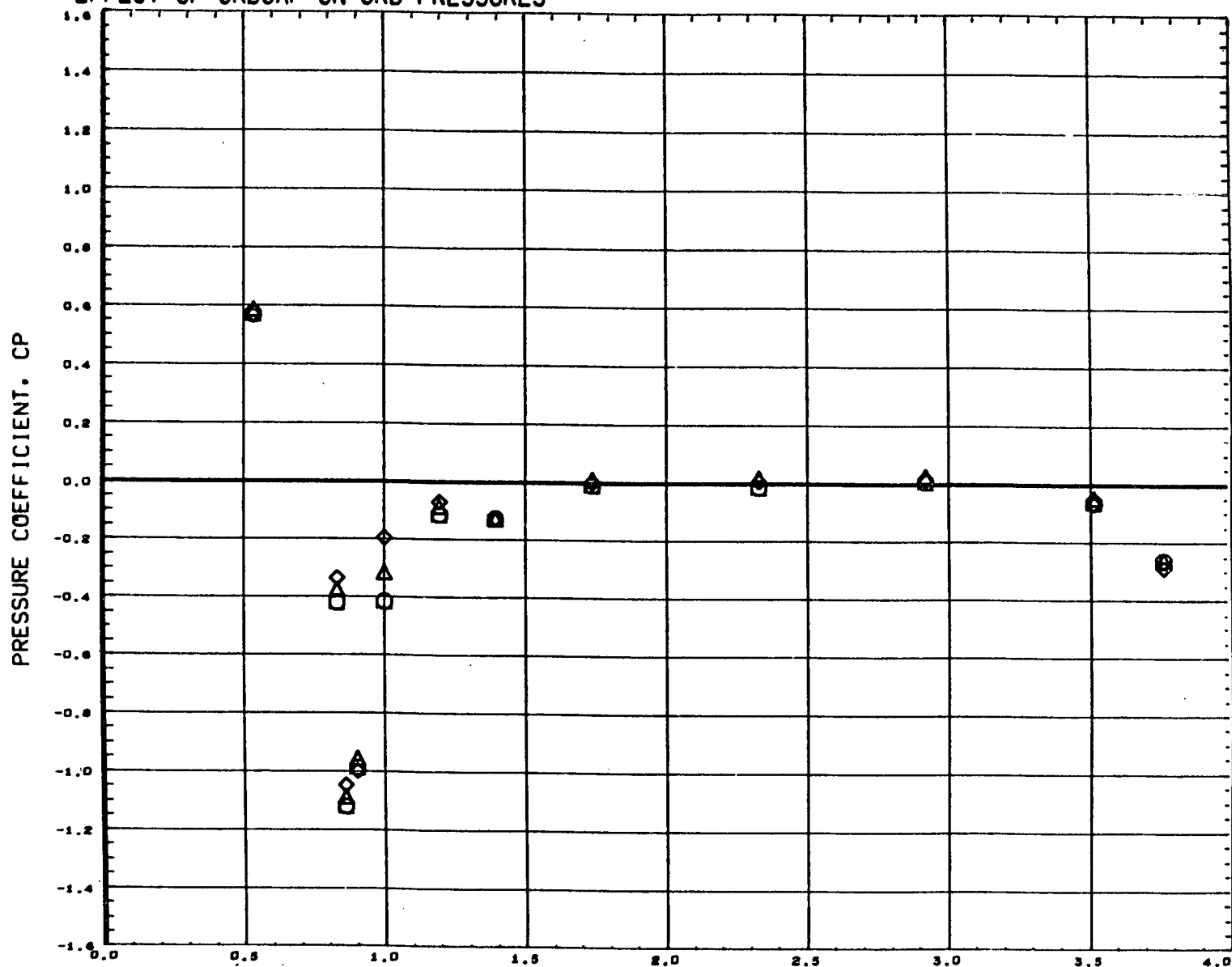
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	0.000	10.000	MACH	0.800	BETA 0.000
△	0.050			ORBINC	1.500	
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

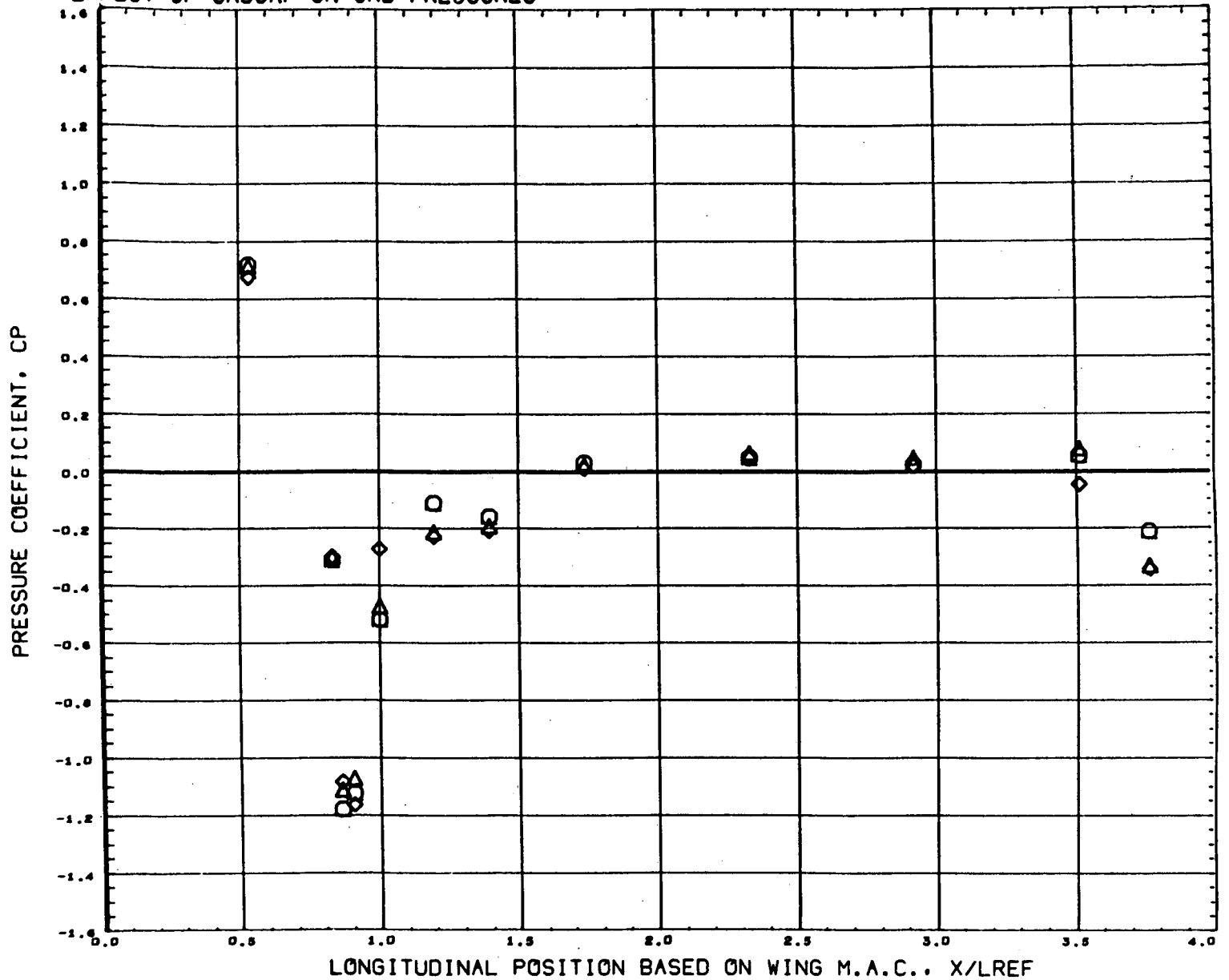
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	180.000	10.000	MACH	0.800	BETA 0.000
△	0.050			ORBINC	- 1.500	
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

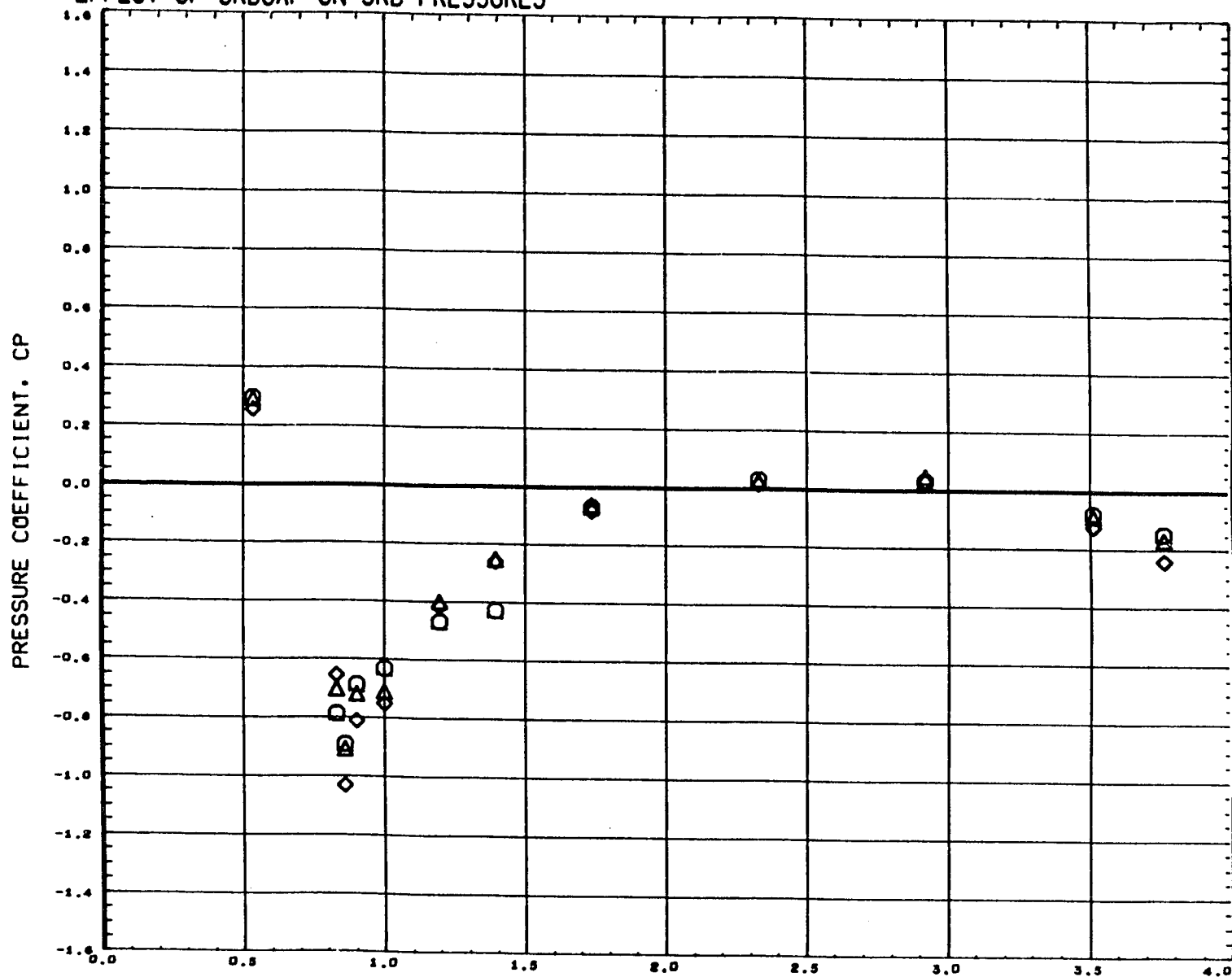
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	225.000	10.000	MACH	0.800	BETA 0.000
△	0.050			ORBINC	1.500	
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

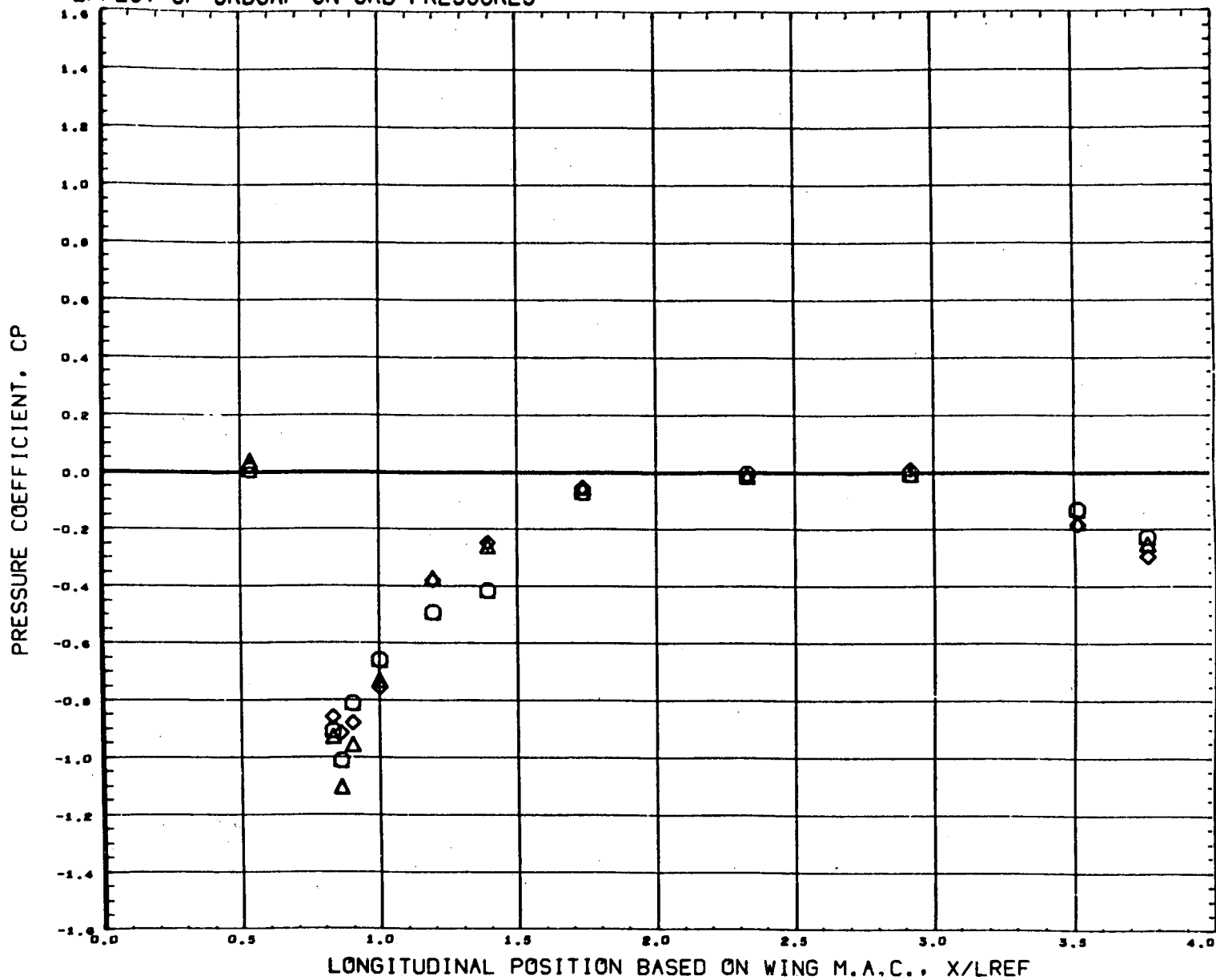
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
△	0.025	270.000	10.000	MACH	0.800	BETA 0.000
□	0.050			ORBINC	- 1.500	
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES

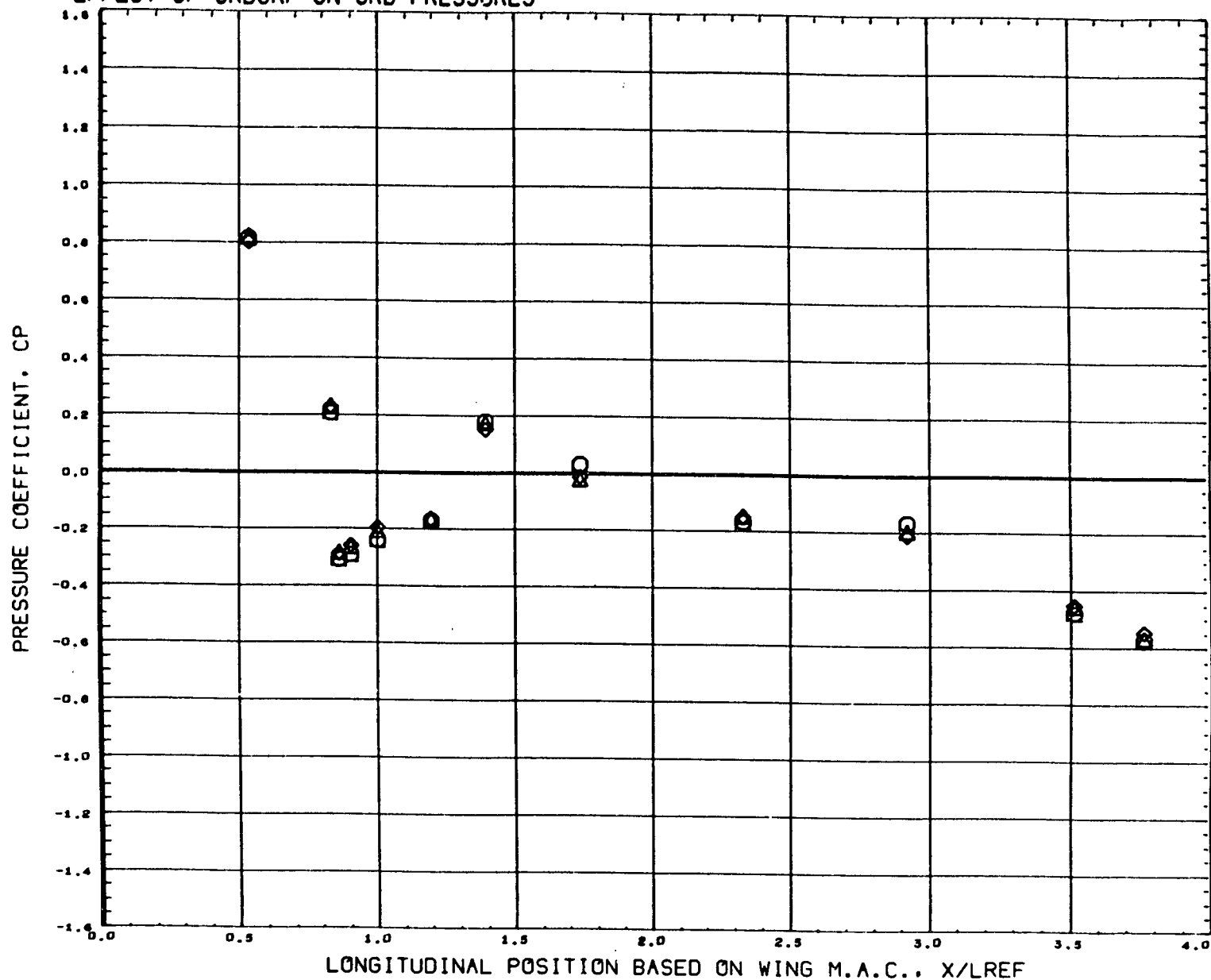


SYMBOL	SRBGAP	PHI	ALPHA
○	0.028	315.000	10.000
△	0.090		
◇	0.100		

PARAMETRIC VALUES		
MACH	0.800	BETA
ORBINC	1.500	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	0.000	- 10.000	MACH	1.200	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

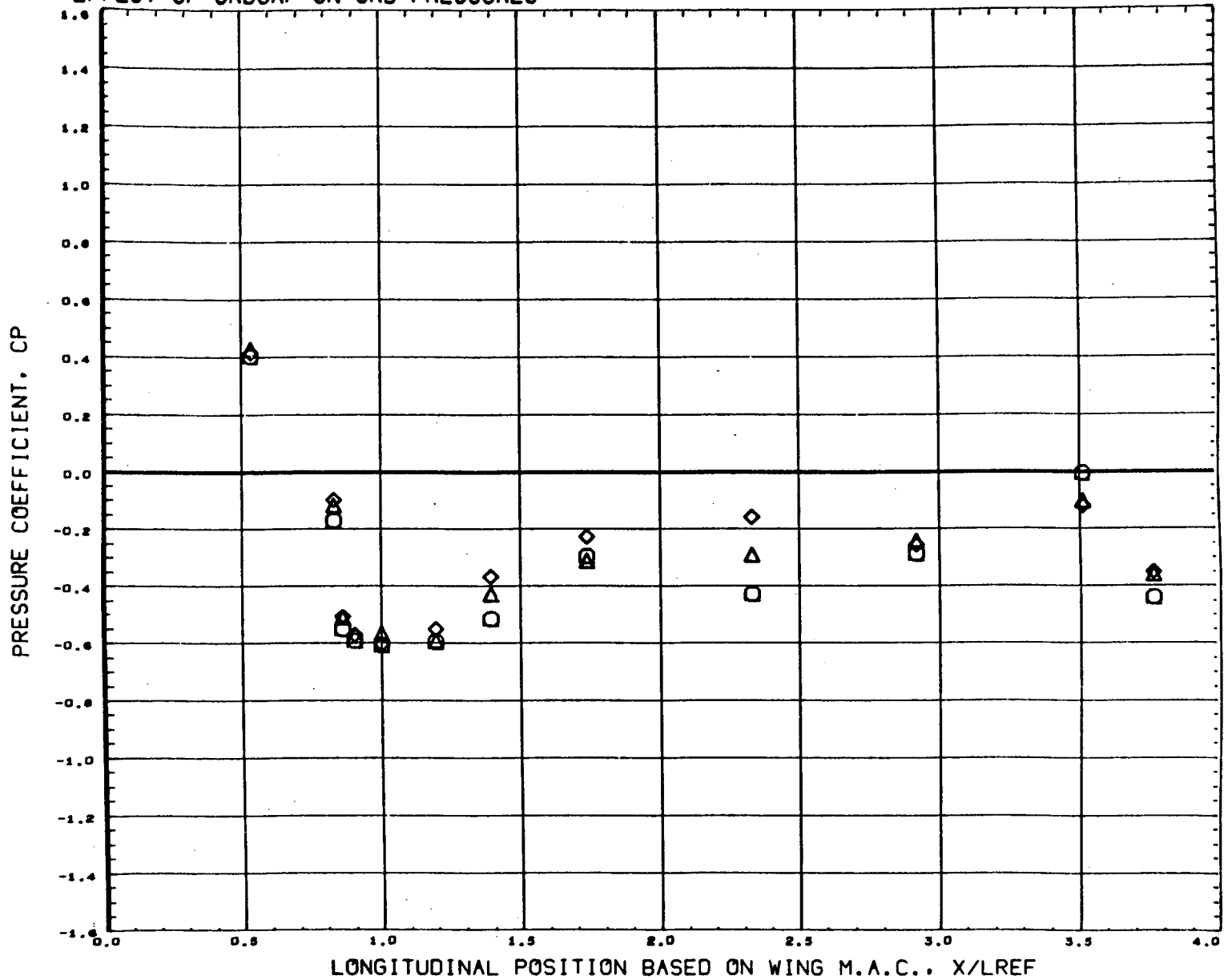
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084S)

PAGE 740

C9

EFFECT OF SRBGAP ON SRB PRESSURES

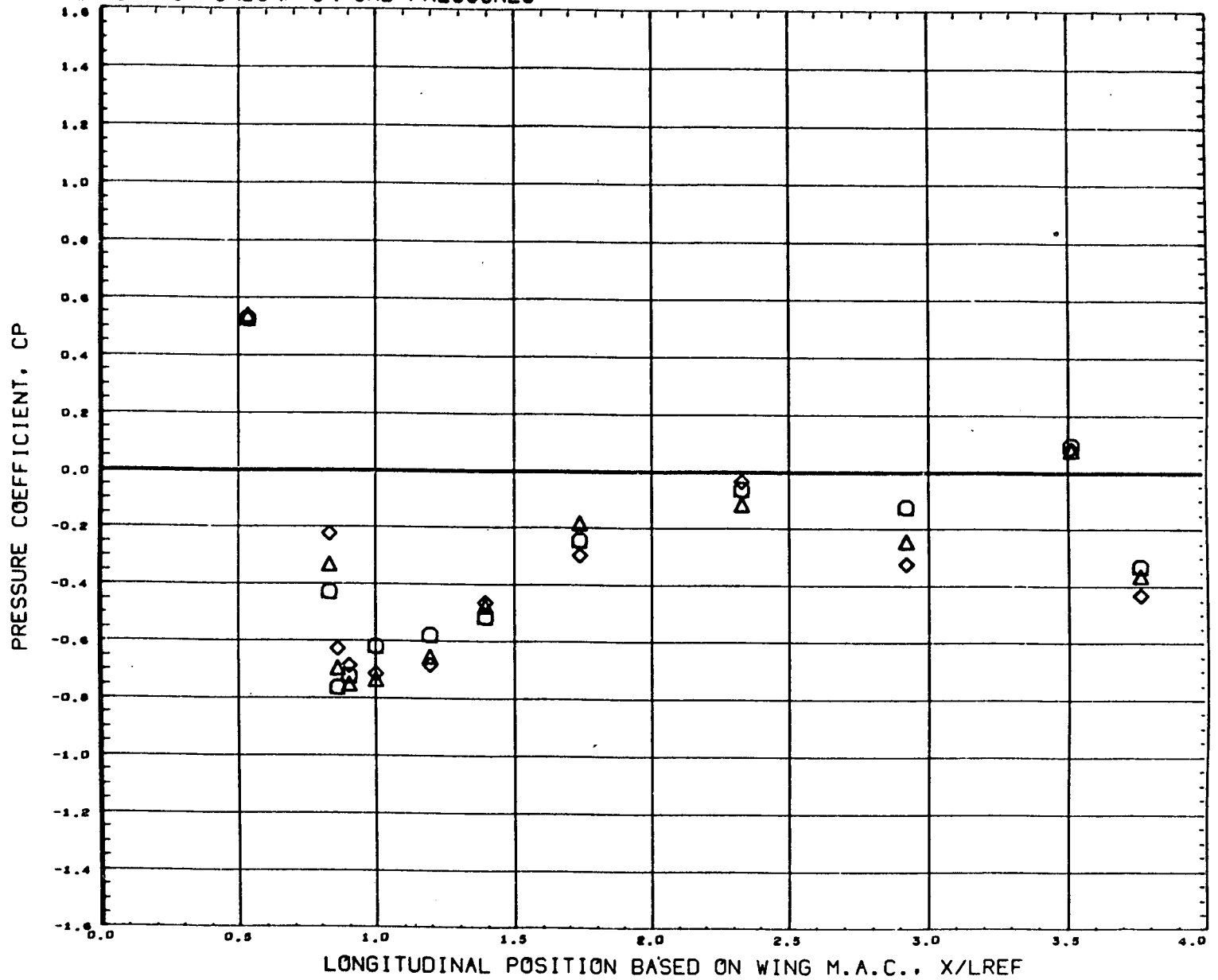


SYMBOL SRBGAP PHI ALPHA
 □ 0.025 100.000 - 10.000
 △ 0.050
 ◇ 0.100

PARAMETRIC VALUES
 MACH 1.200 BETA 0.000
 ORBINC - 1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES

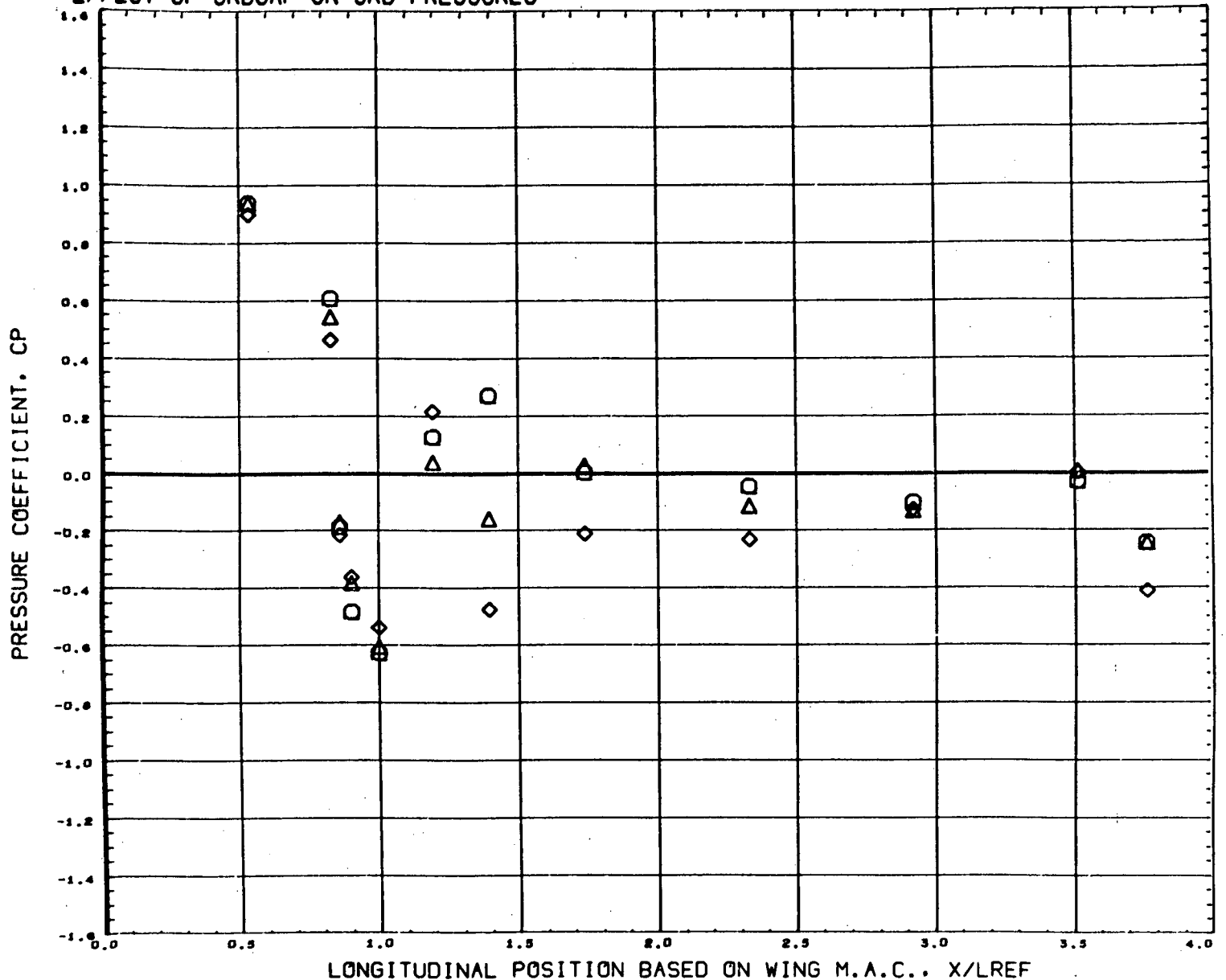


SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	225.000	- 10.000
△	0.050		
◇	0.100		

PARAMETRIC VALUES		
MACH	1.200	BETA
ORBIT	- 1.500	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

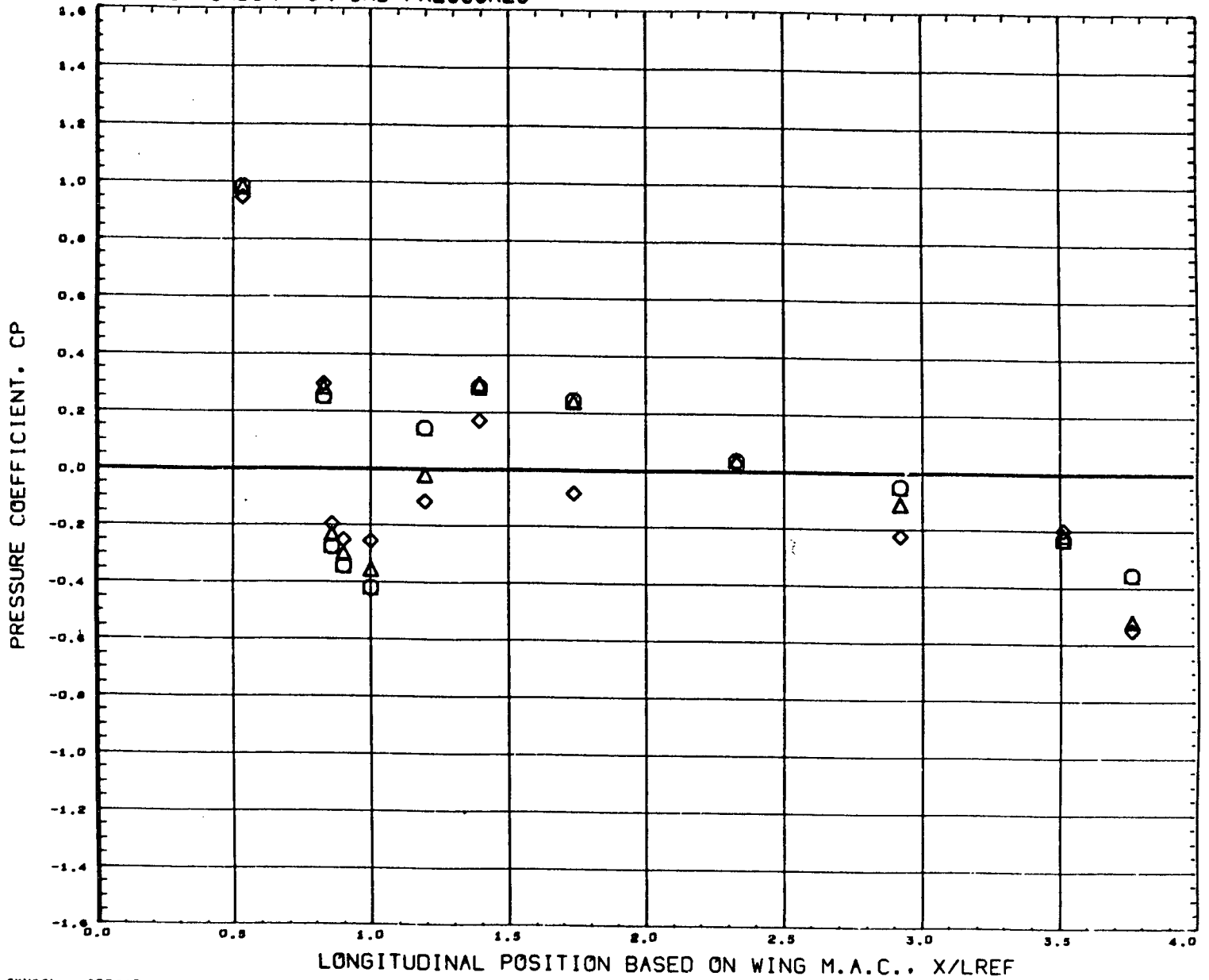
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	270.000	- 10.000	MACH	1.200	BETA
△	0.050			ORBINC	1.500	0.000
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

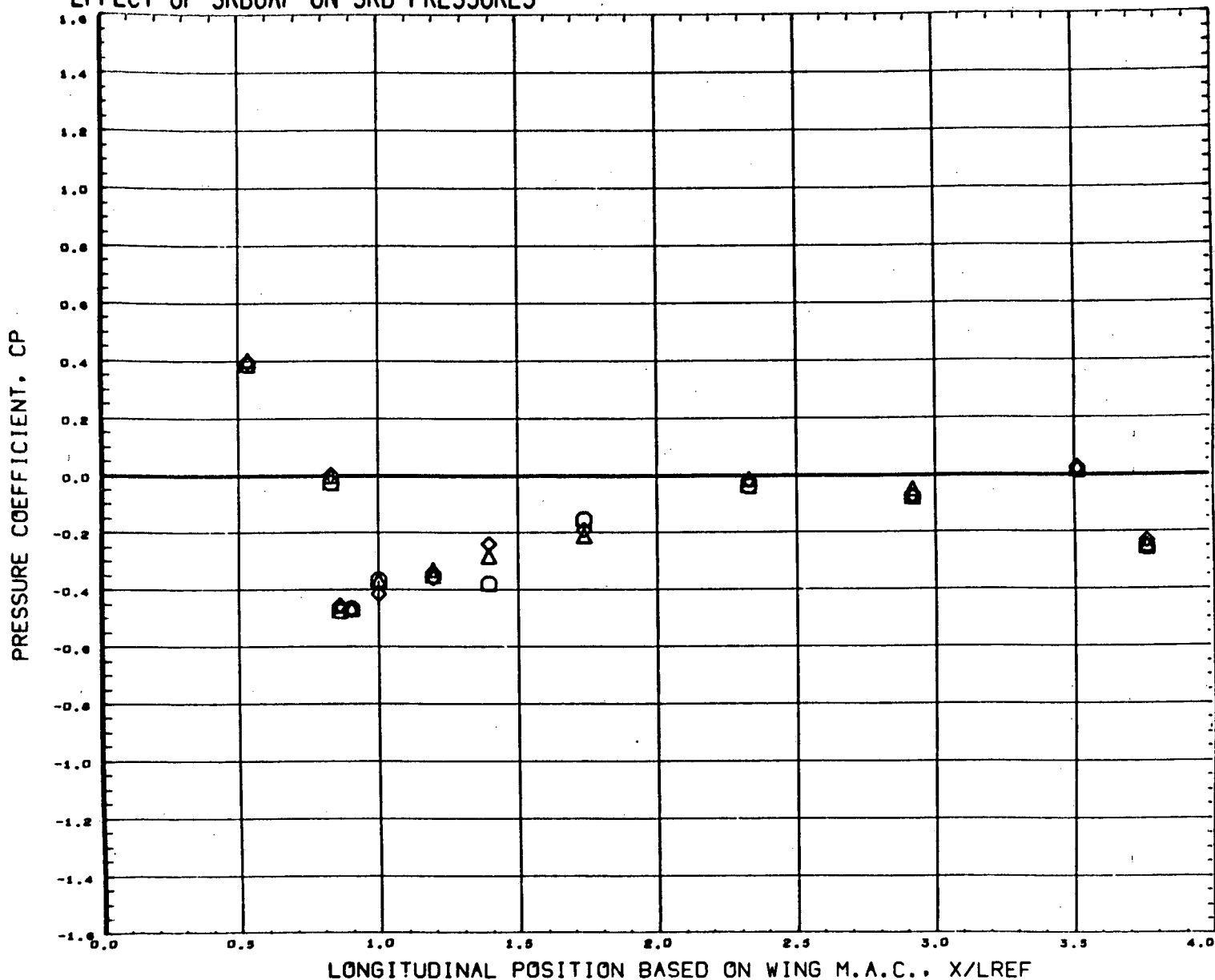
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	315.000	- 10.000	MACH	1.200	BETA
△	0.050			ORBINC	- 1.500	0.000
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES

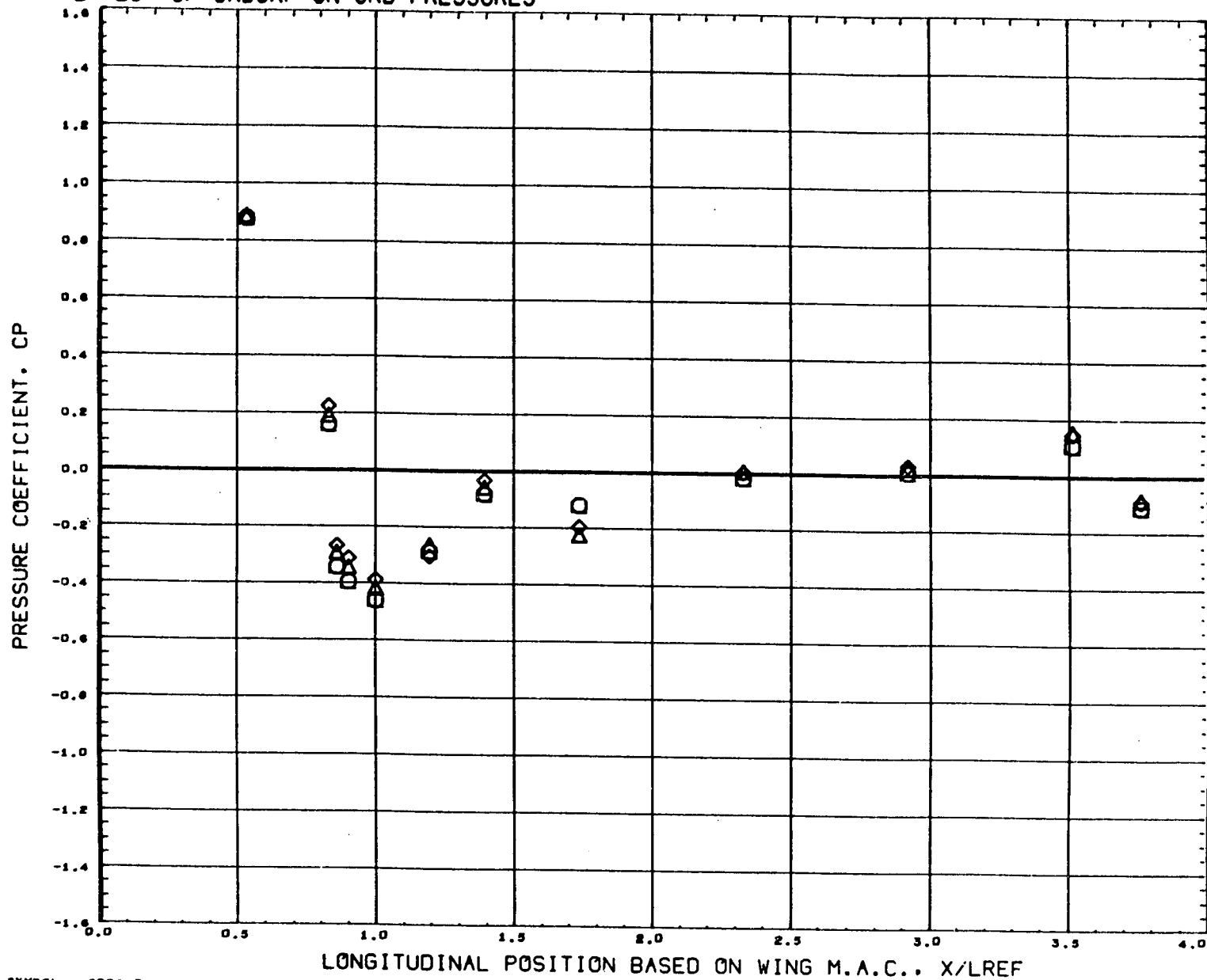


SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	0.000	10.000
△	0.050		
◇	0.100		

PARAMETRIC VALUES		
MACH	1.200	BETA
ORBINC	- 1.500	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES



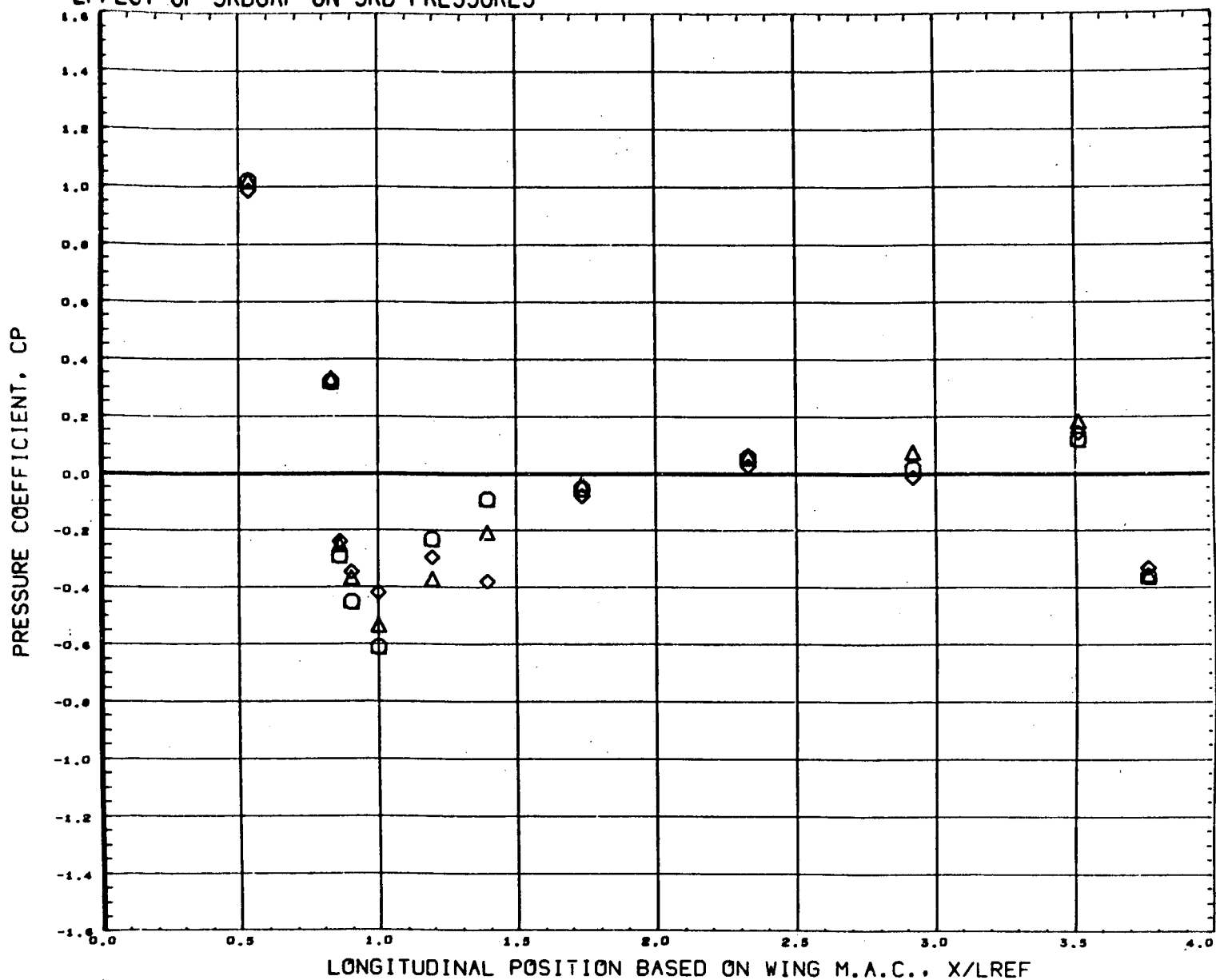
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
				MACH	BETA	ORBINC
□	0.025	100.000	10.000	1.200	0.000	
△	0.050					
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7084S)

PAGE 746

EFFECT OF SRBGAP ON SRB PRESSURES

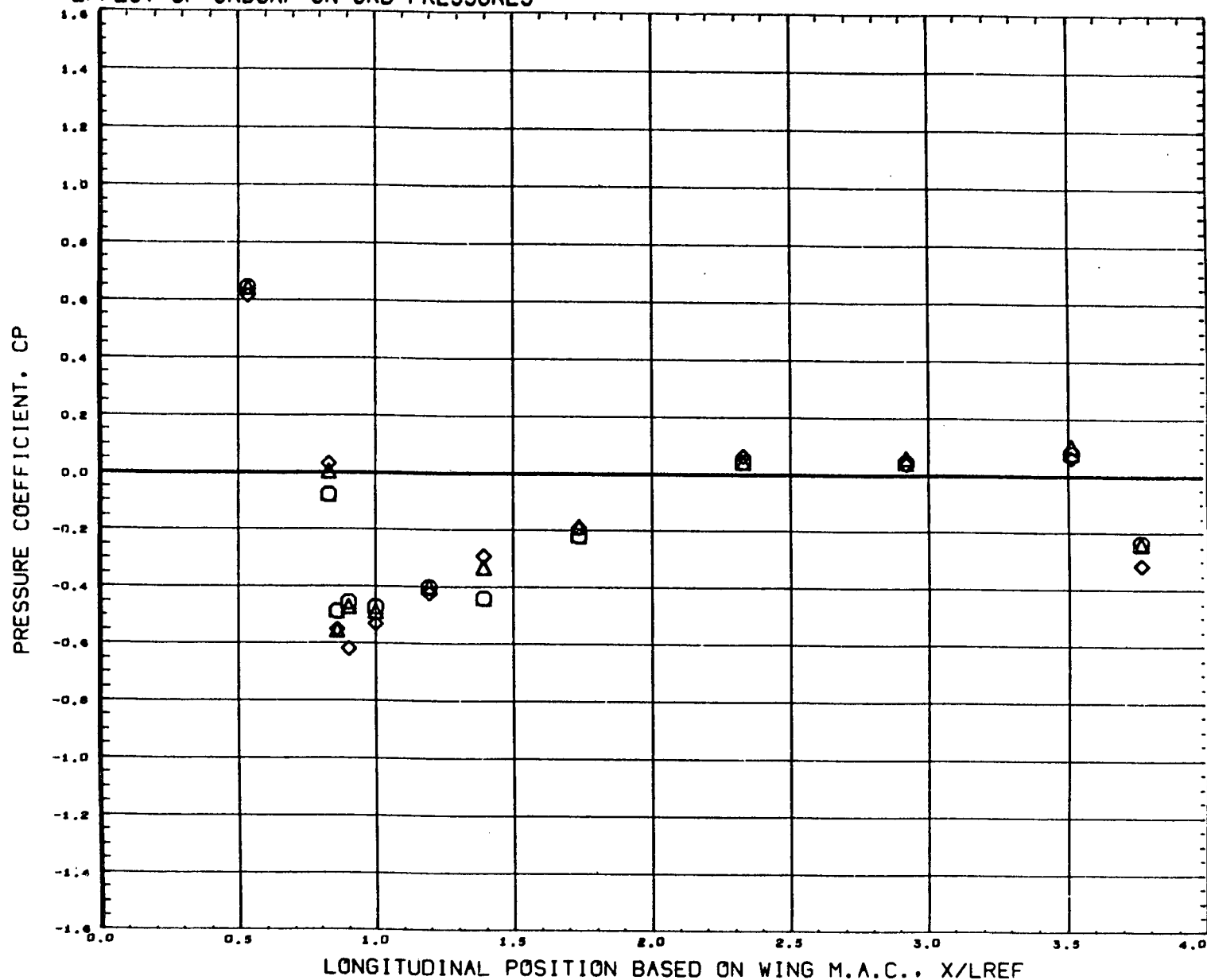


SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	225,000	10,000
△	0.050		
◇	0.100		

PARAMETRIC VALUES		
MACH	1.200	BETA
ORBINC	- 1.500	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

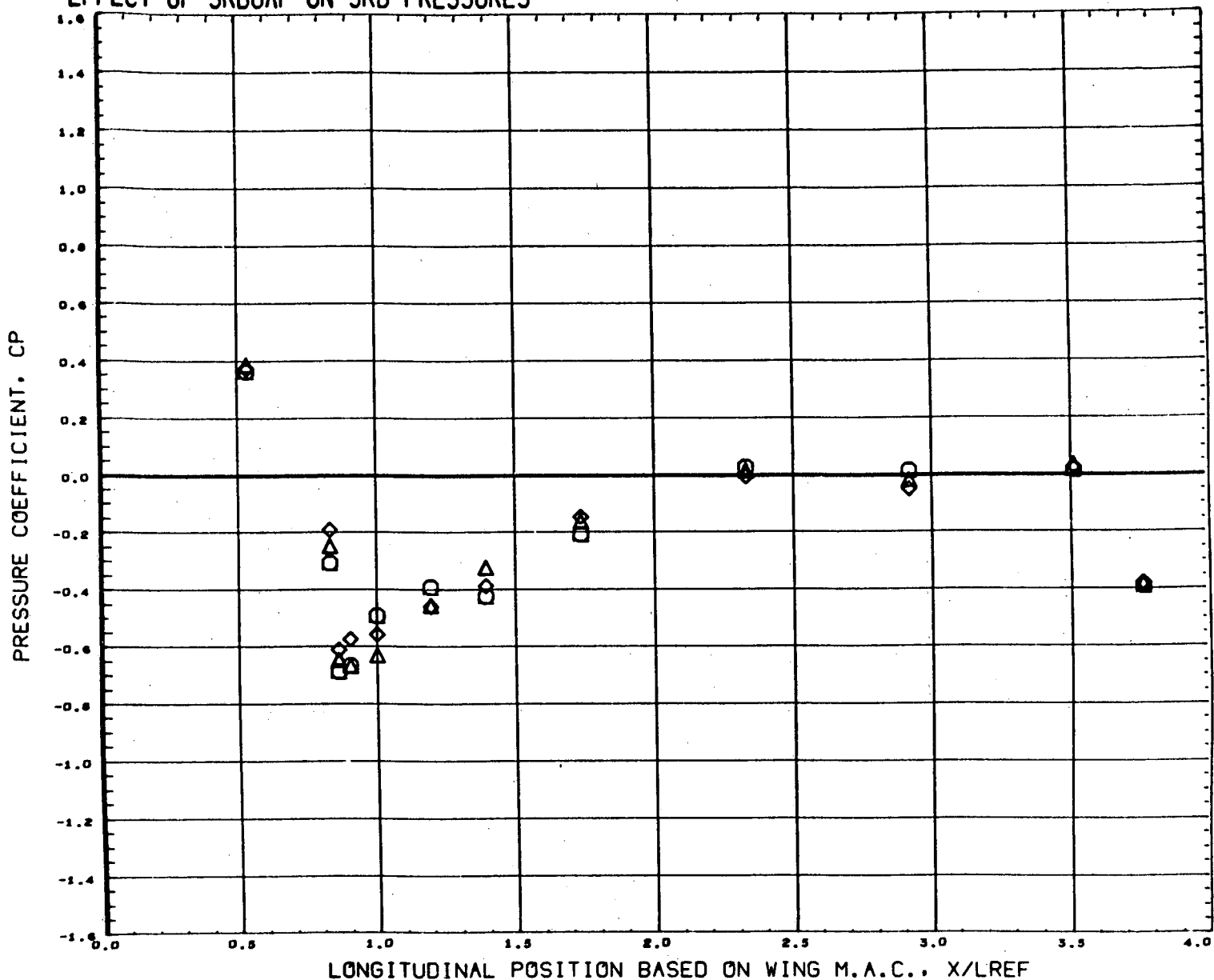
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	270.000	10.000	MACH	1.200	BETA 0.000
△	0.080			ORBINC	- 1.500	
◇	0.100					

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES

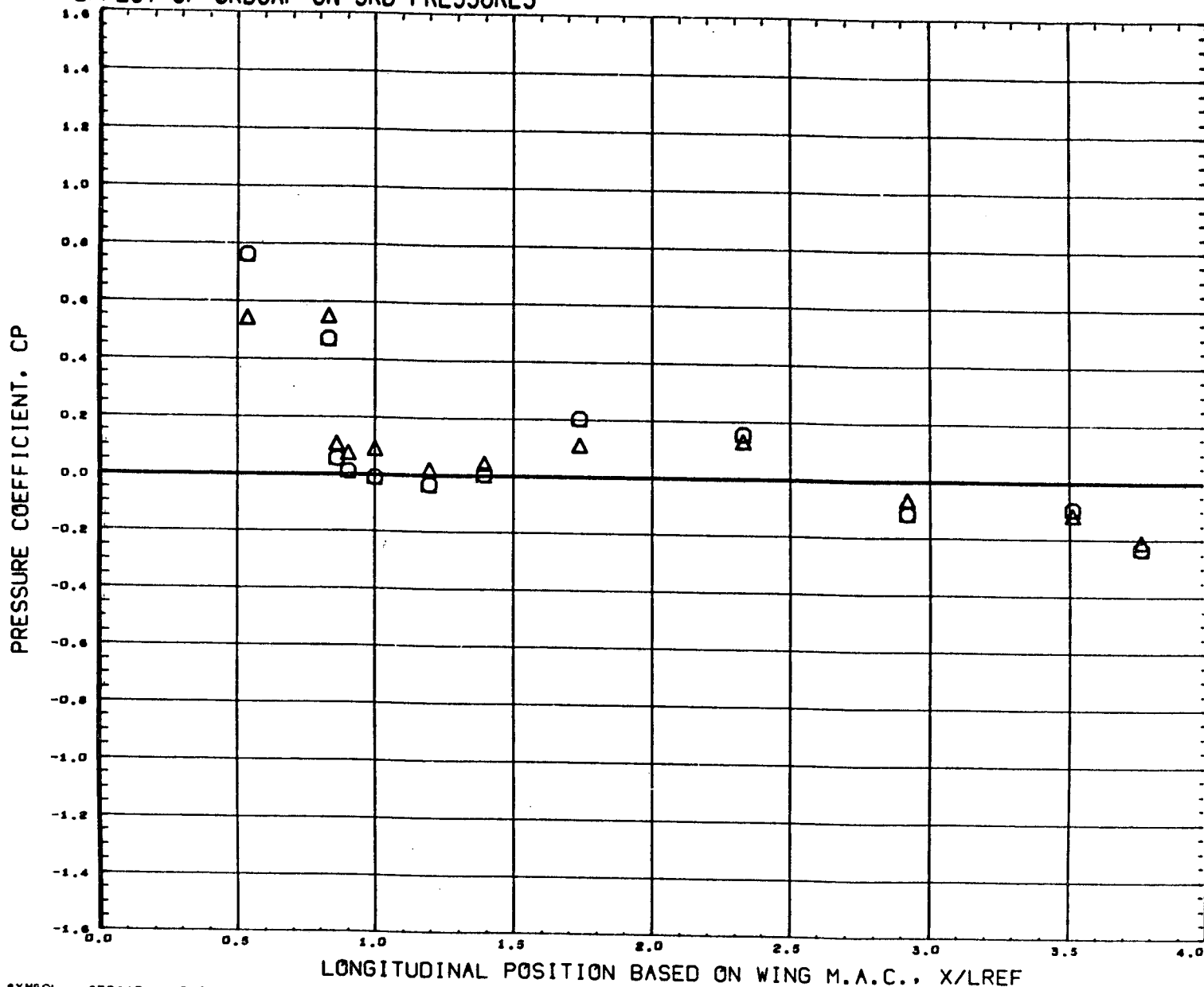


SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	315.000	10.000
△	0.050		
◇	0.100		

PARAMETRIC VALUES			
MACH	1.200	BETA	0.000
ORBINC	- 1.500		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES



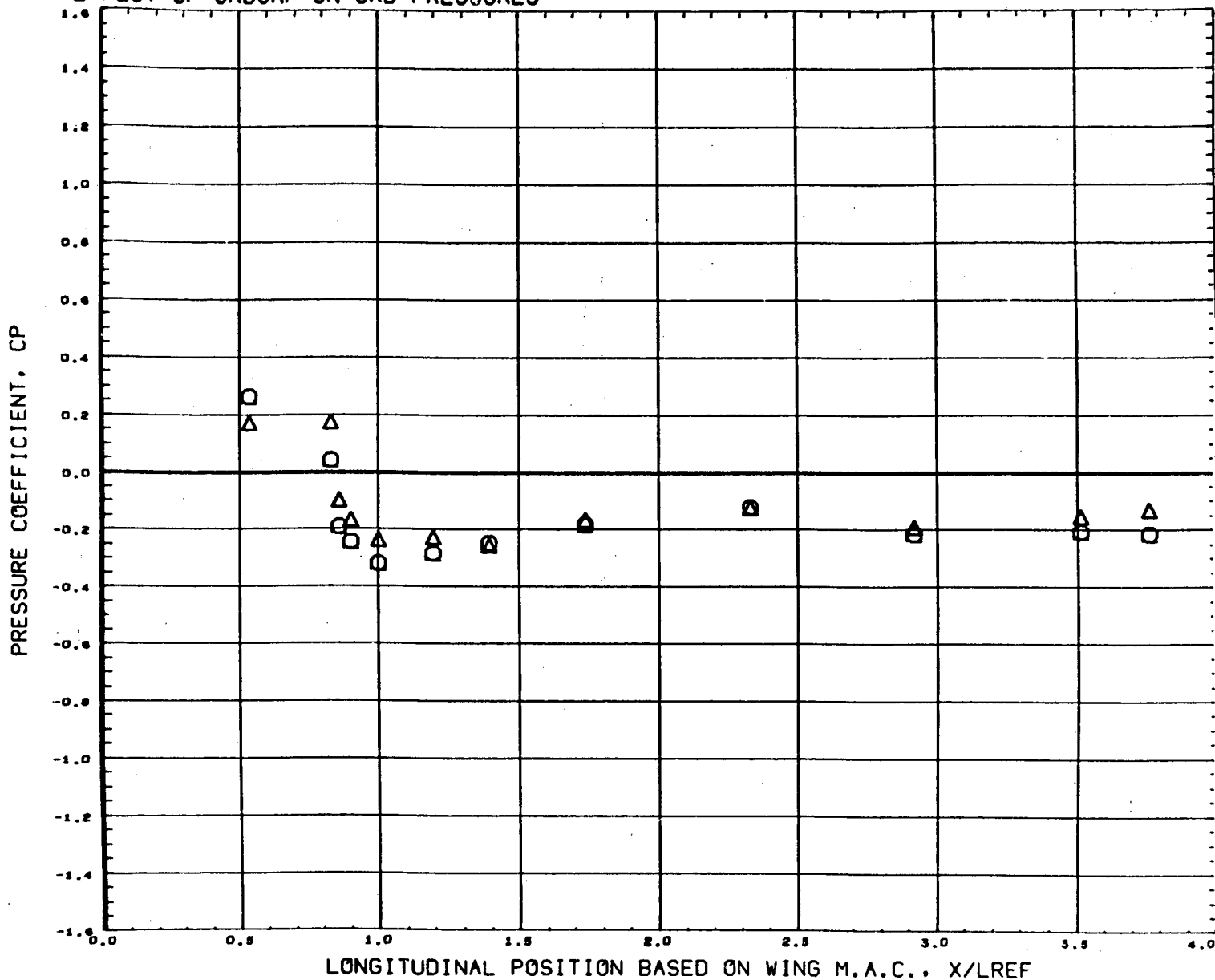
SYMBOL
 ○ SRBGAP 0.025
 △ SRBGAP 0.100

PHI 0.000 - 10.000
 ALPHA

PARAMETRIC VALUES
 MACH 1.960
 ORBINC - 1.500
 BETA 0.000

NOTE- SRB NOSE LOCATED AT X/LREF=0.369

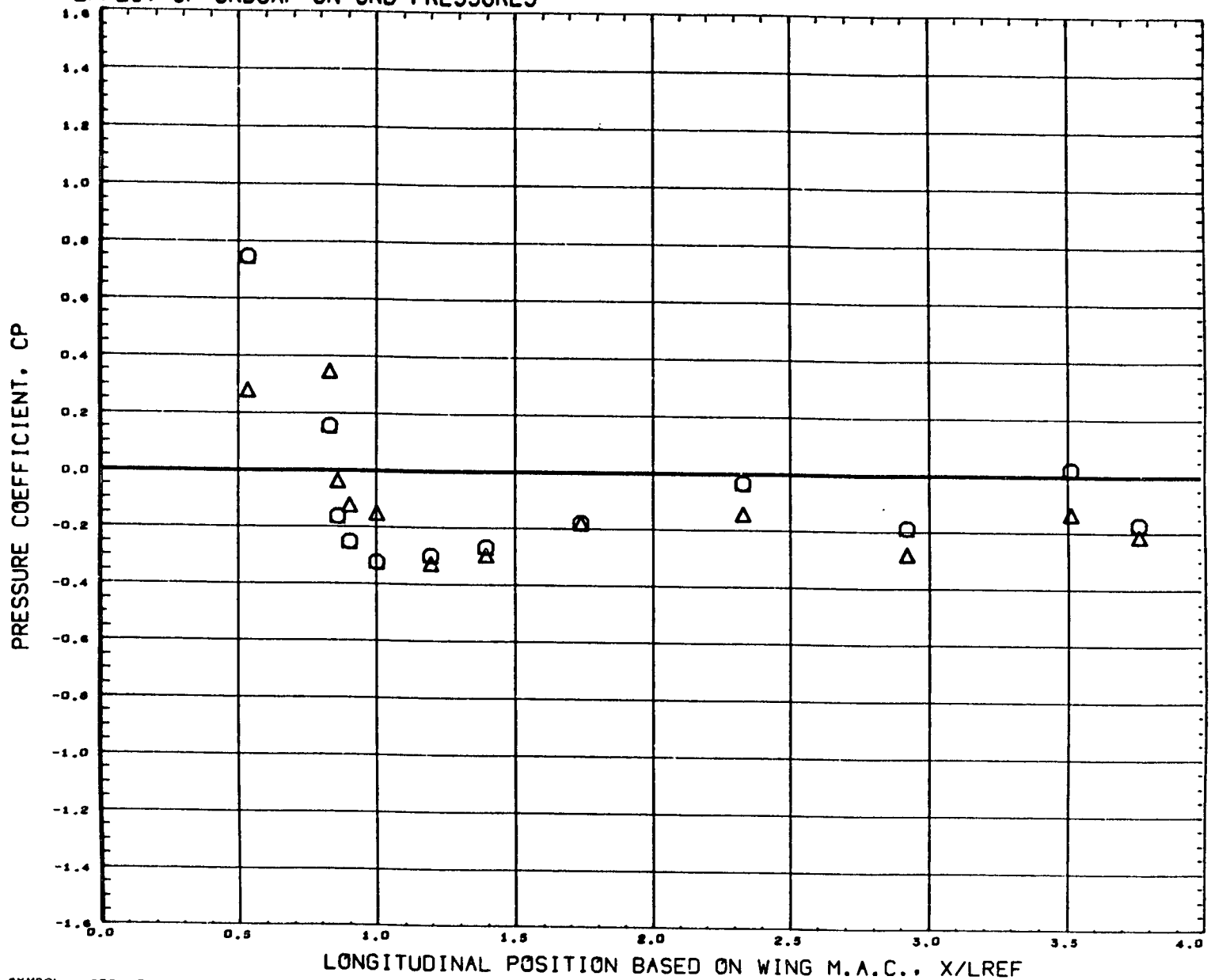
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES			
○	0.025	100.000	- 10.000	MACH	1.960	BETA	0.000
△	0.100			ORBINC	- 1.500		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

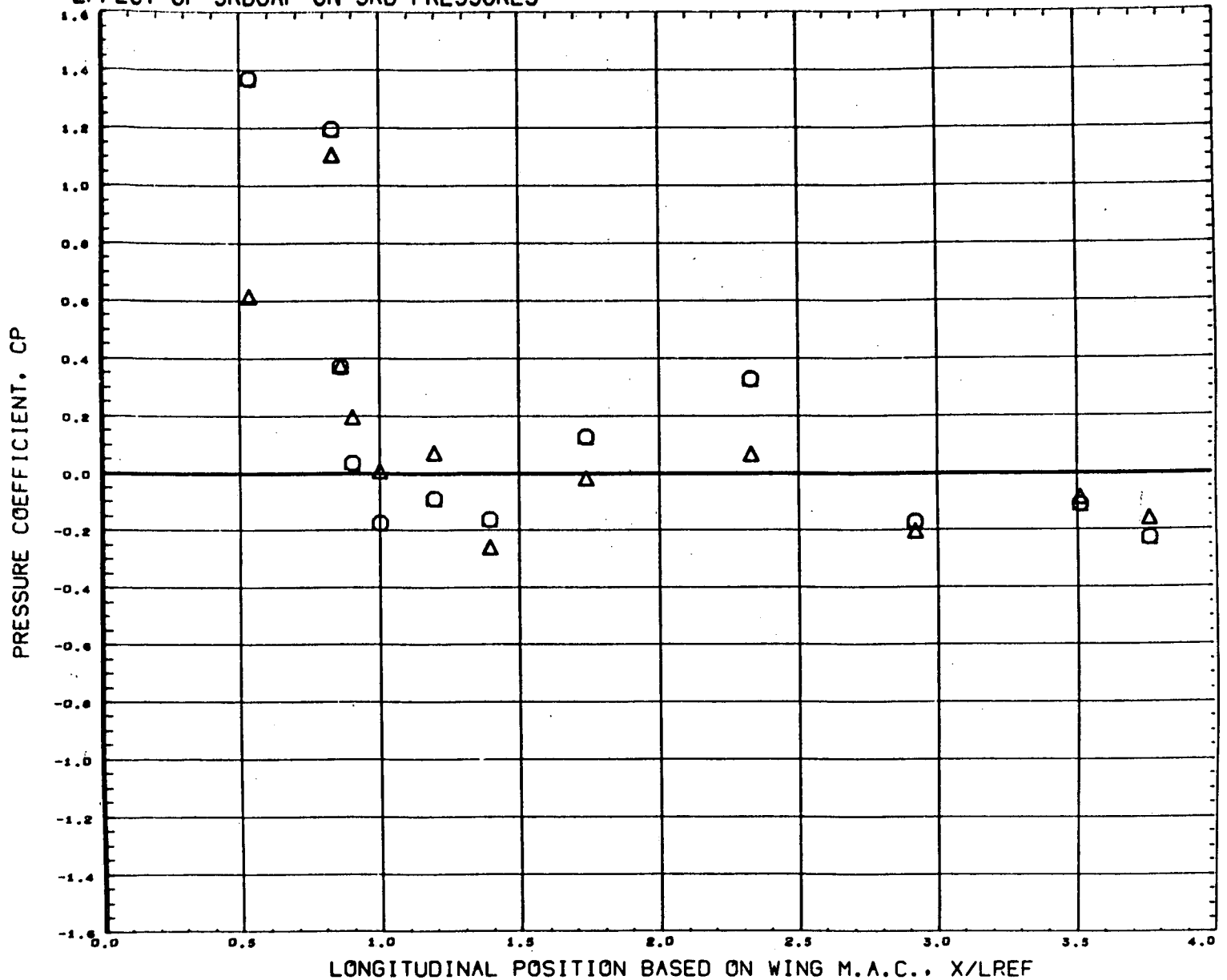
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	225.000	- 10.000	MACH	1.960	BETA 0.000
△	0.100			ORBINC	- 1.500	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA
○	0.025	270,000	- 10,000
△	0.100		

PARAMETRIC VALUES		
MACH	1.960	BETA 0.000
ORBINC	- 1.500	

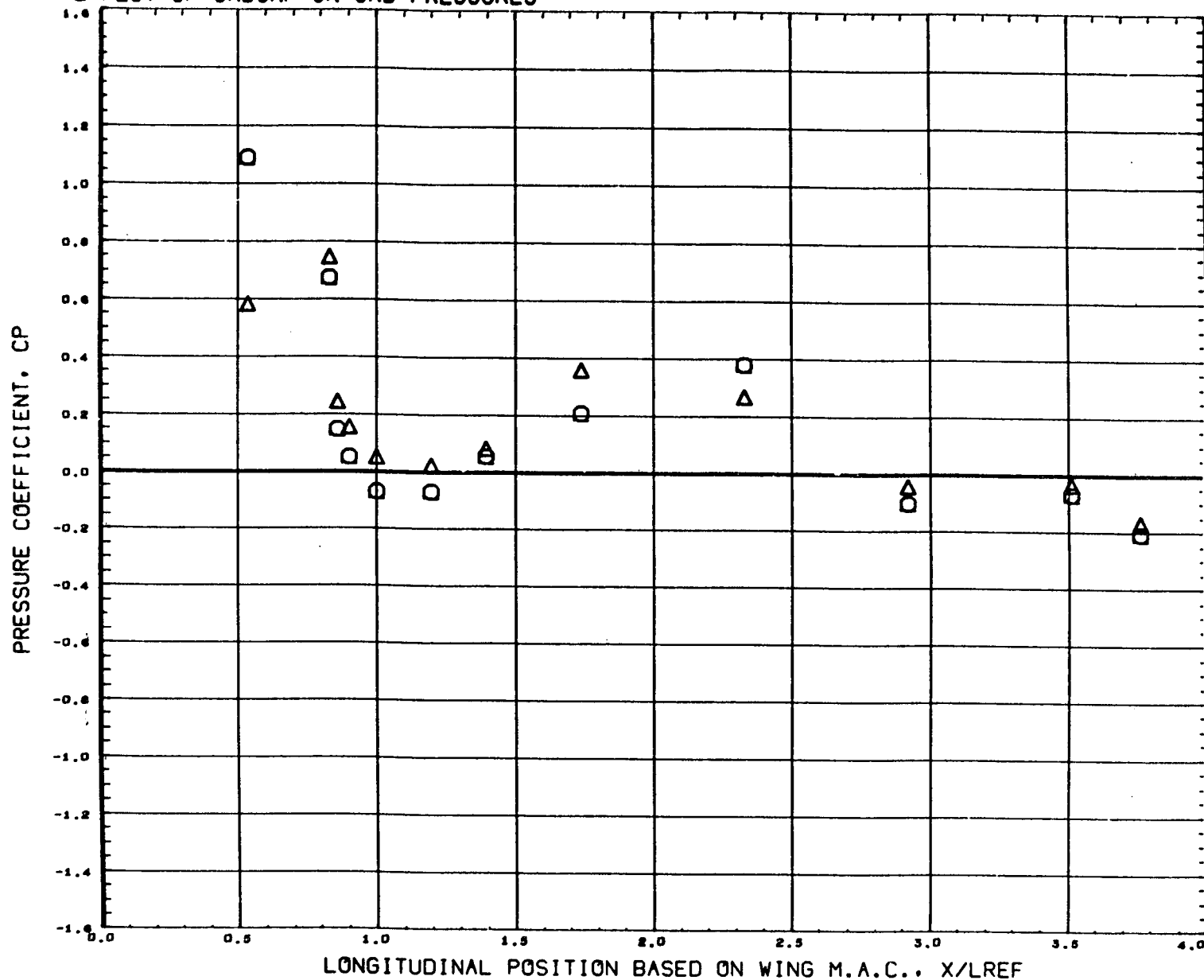
NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7086S)

PAGE 753

B

EFFECT OF SRBGAP ON SRB PRESSURES



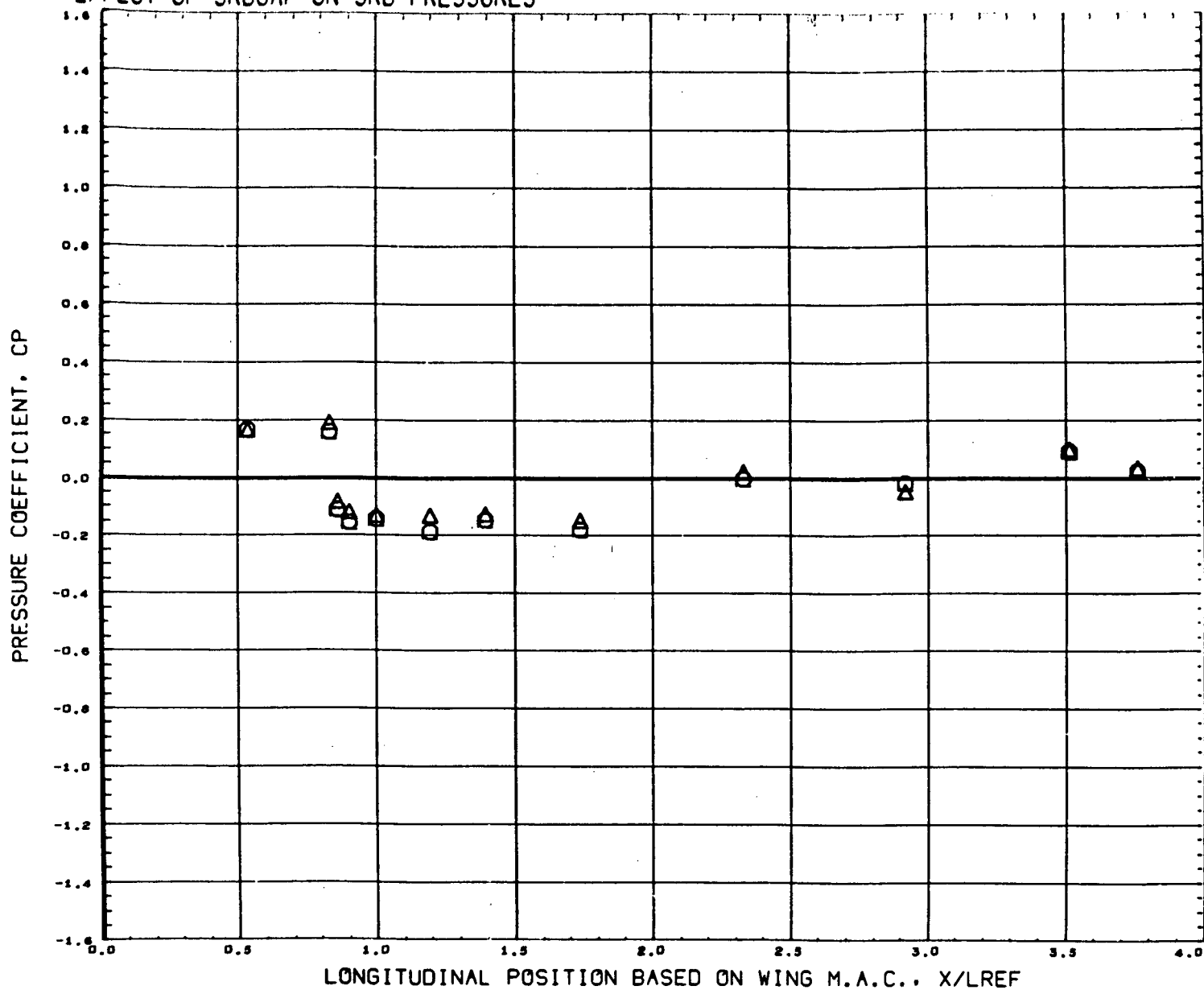
SYMBOL
 O
 Δ

SRBGAP	PHI	ALPHA
0.025	315.000	- 10.000
0.100		

PARAMETRIC VALUES
 MACH 1.960 BETA 0.000
 ORBINC - 1.500

NOTE- SRB NOSE LOCATED AT X/LREF=.369

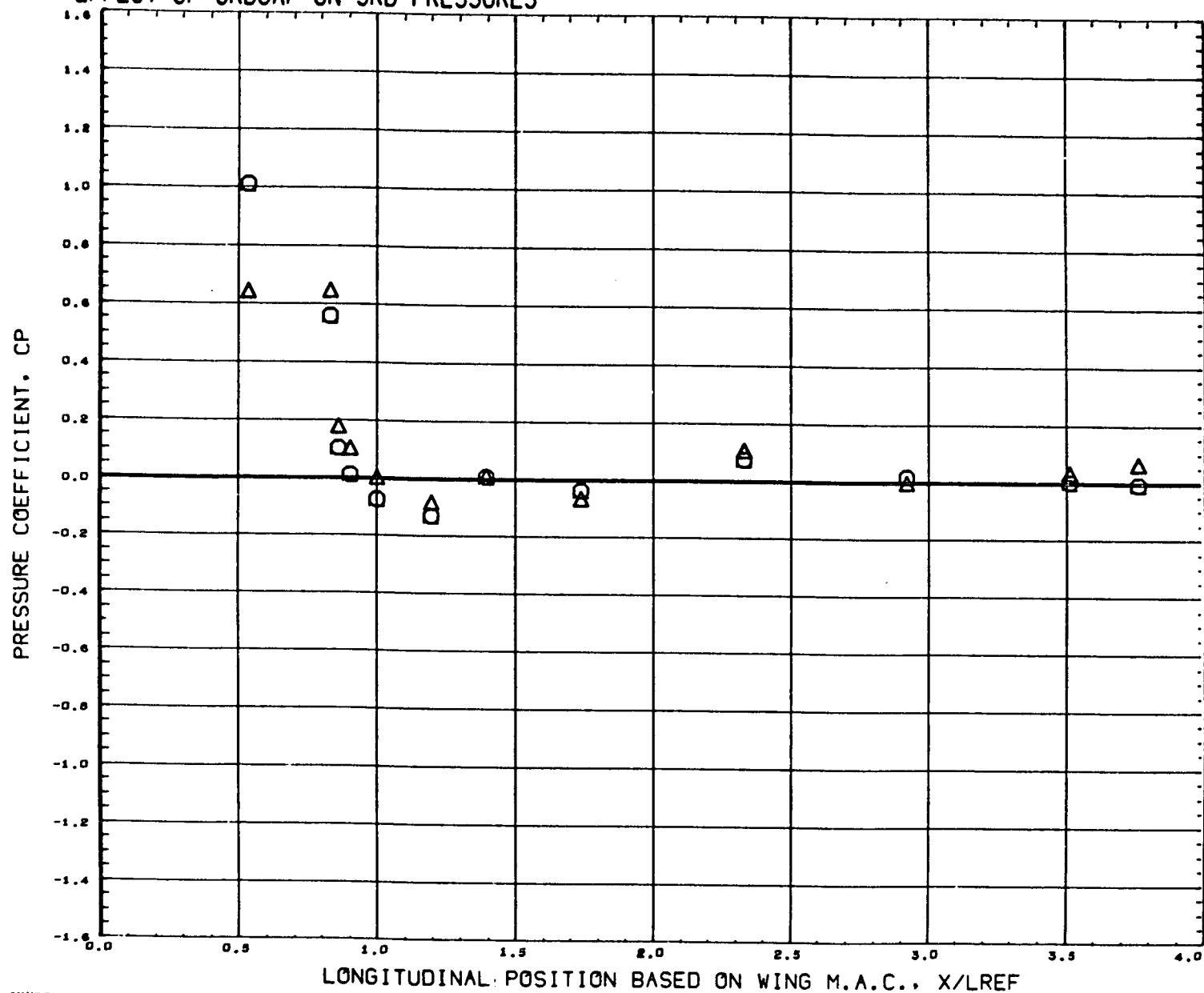
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	0.000	10.000	MACH	1.960	BETA
△	0.100			ORBINC	1.500	0.000

NOTE- SRB NOSE LOCATED AT X/LREF=.369

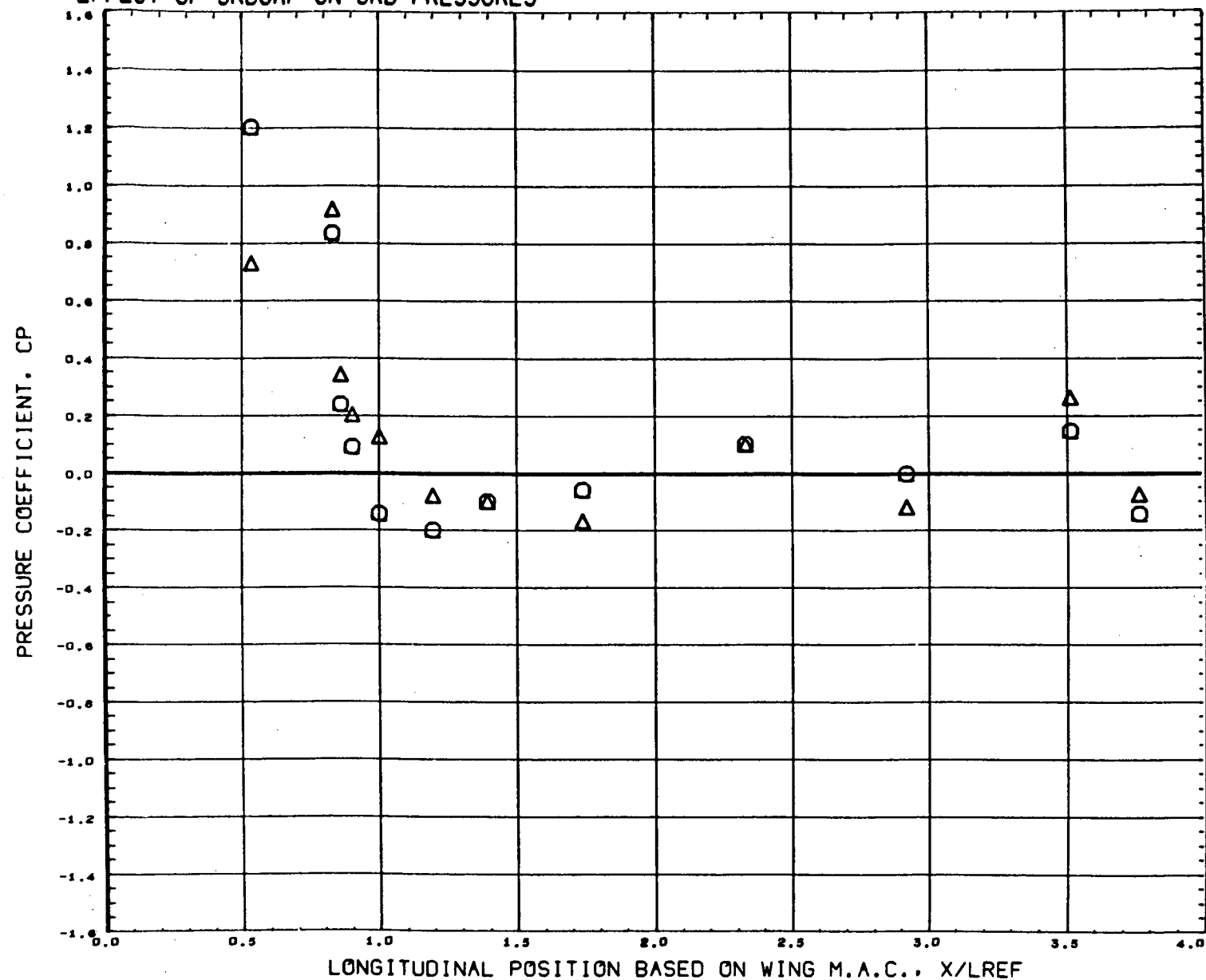
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
				MACH	BETA	ORBINC
○	0.025	100.000	10.000	1.960	0.000	
△	0.100			1.500		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES

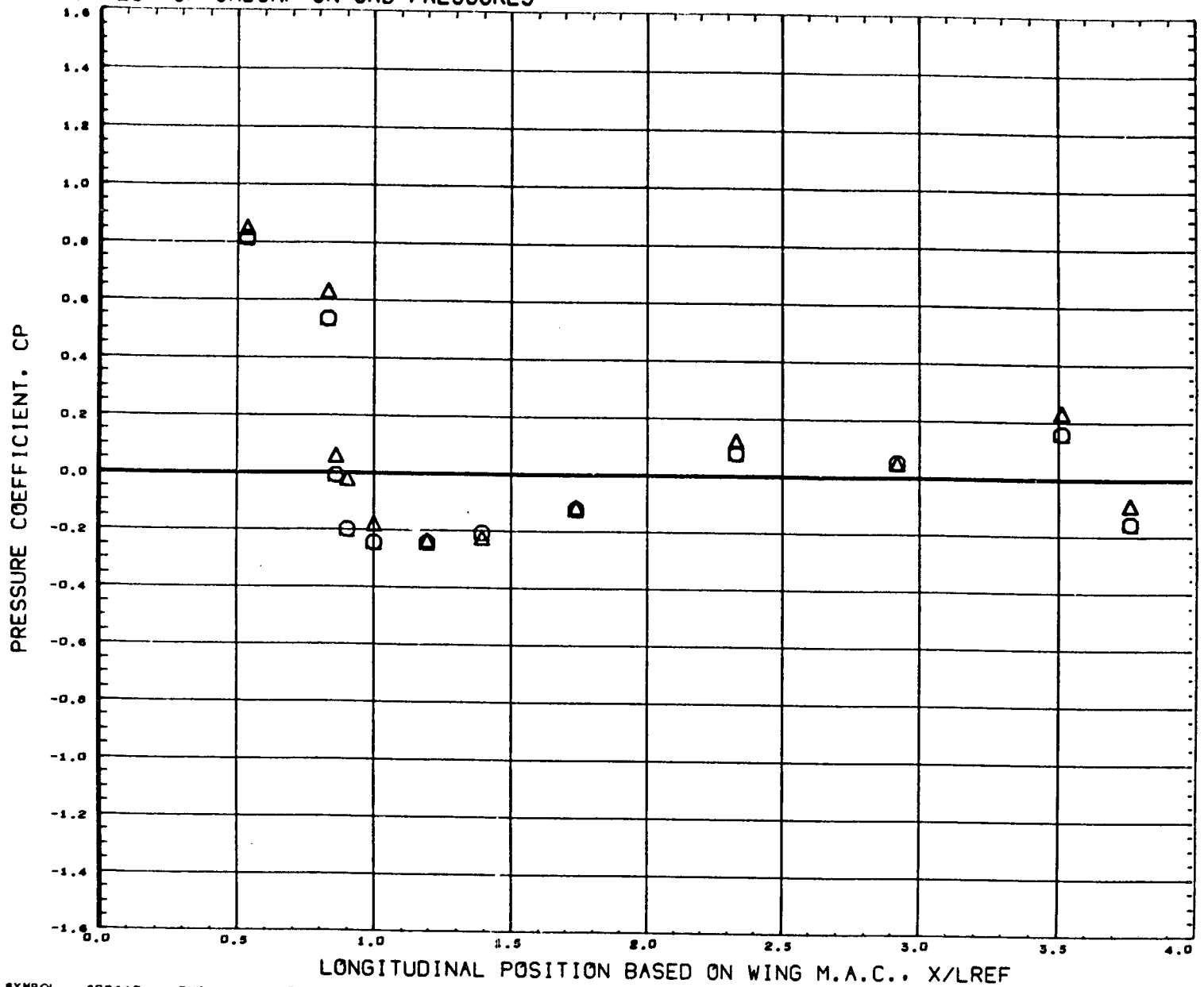


LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
				MACH	BETA	
○	0.025	225.000	10.000	1.960	0.000	
△	0.100			1.500		

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF SRBGAP ON SRB PRESSURES



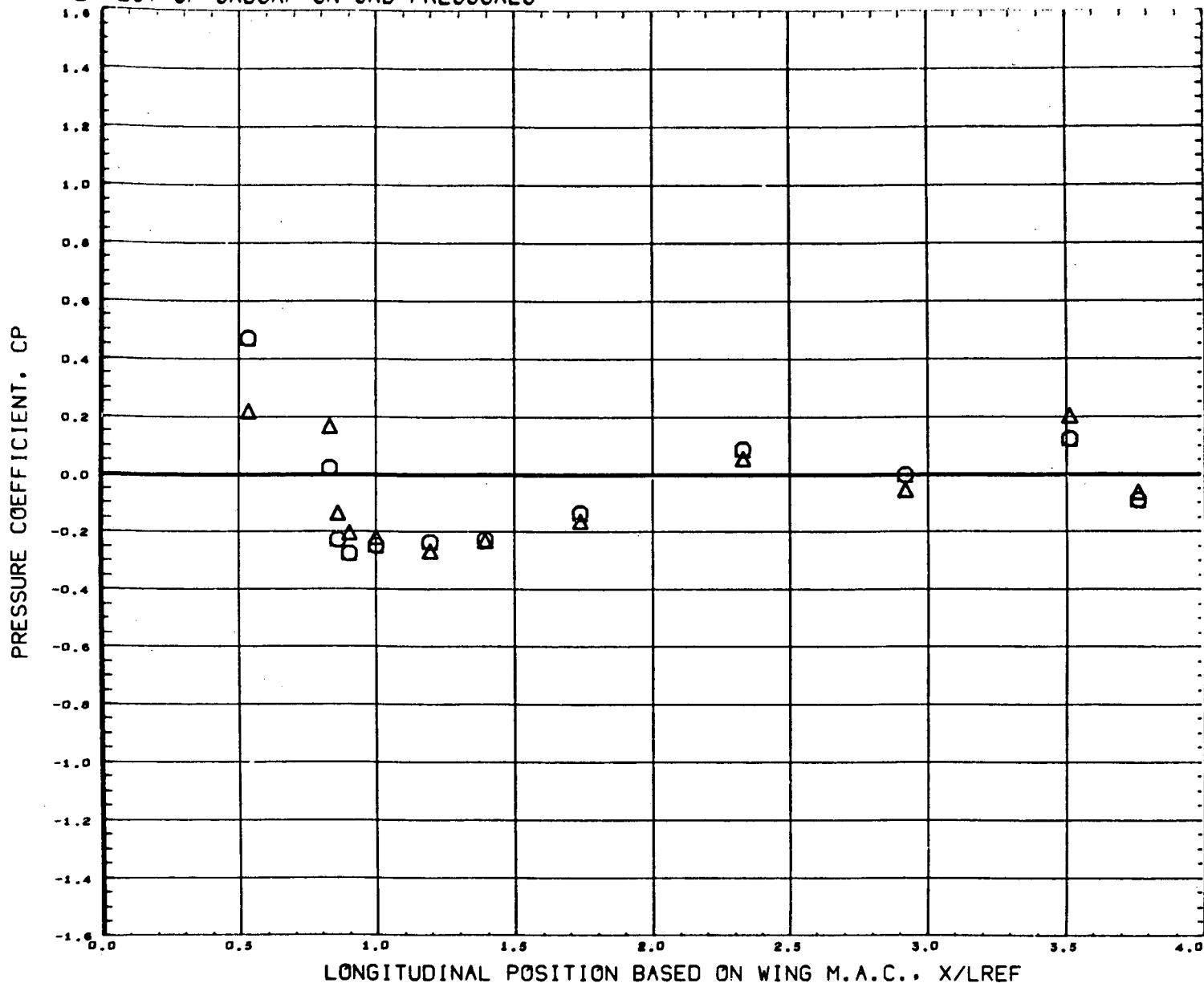
SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	270.000	10.000	MACH	1.960	BETA 0.000
△	0.100			ORBINC	- 1.500	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101 (R7086S)

PAGE 758

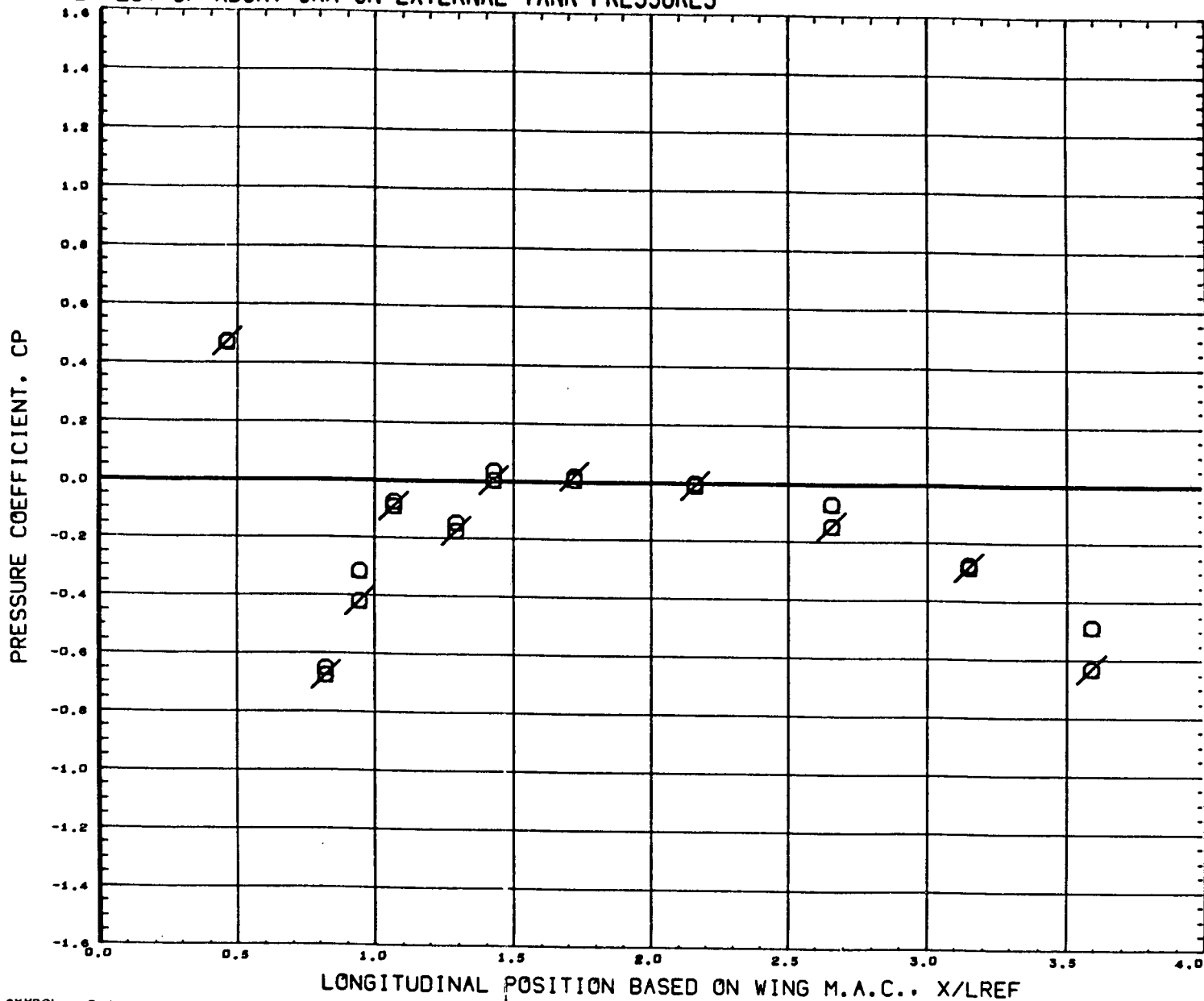
EFFECT OF SRBGAP ON SRB PRESSURES



SYMBOL	SRBGAP	PHI	ALPHA	PARAMETRIC VALUES		
○	0.025	315.000	10.000	MACH	1.960	BETA 0.000
△	0.100			ORBINC	- 1.500	

NOTE- SRB NOSE LOCATED AT X/LREF=.369

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

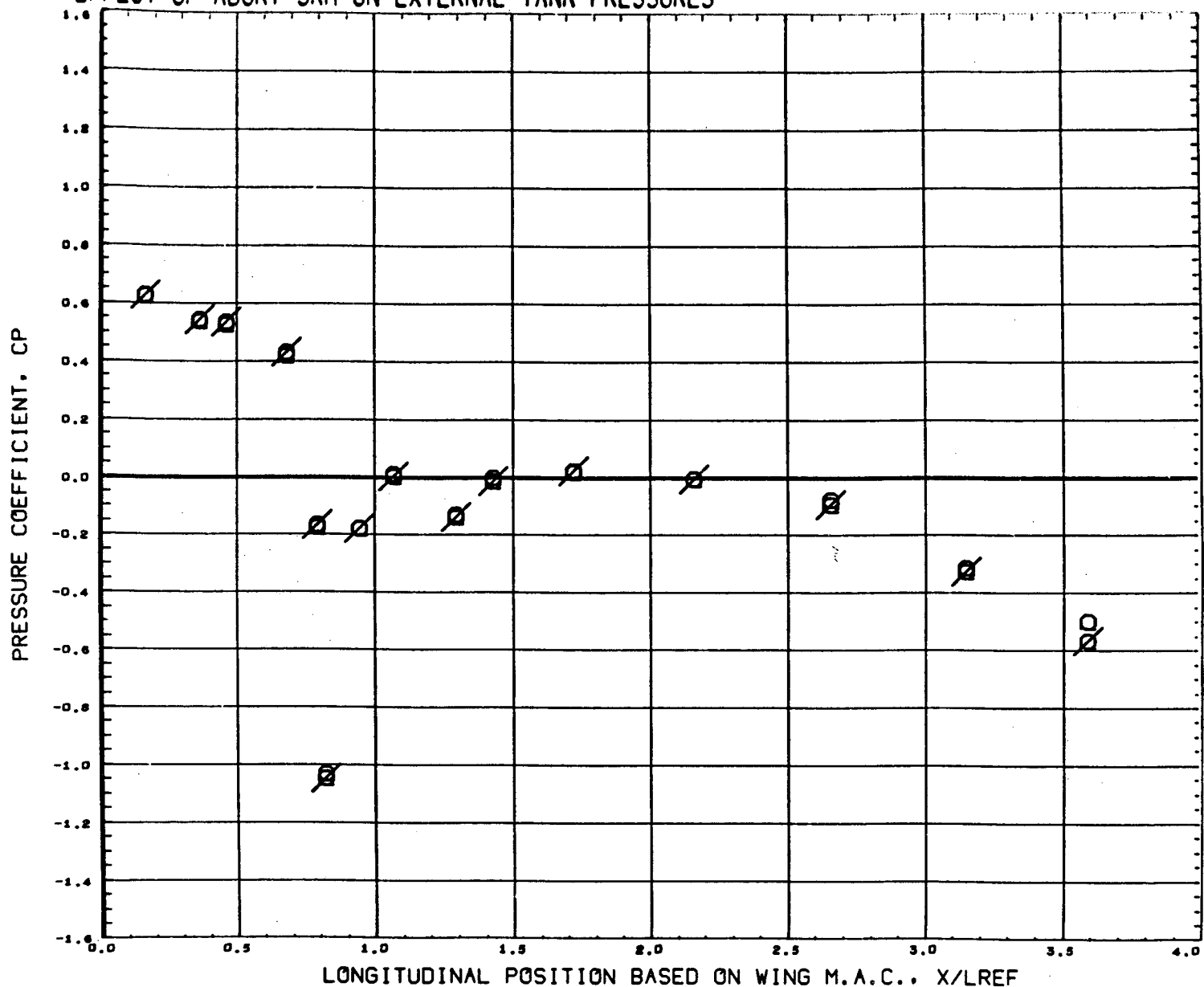


SYMBOL \circ PHI 60.000 - 10.000 ALPHA 0.800 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

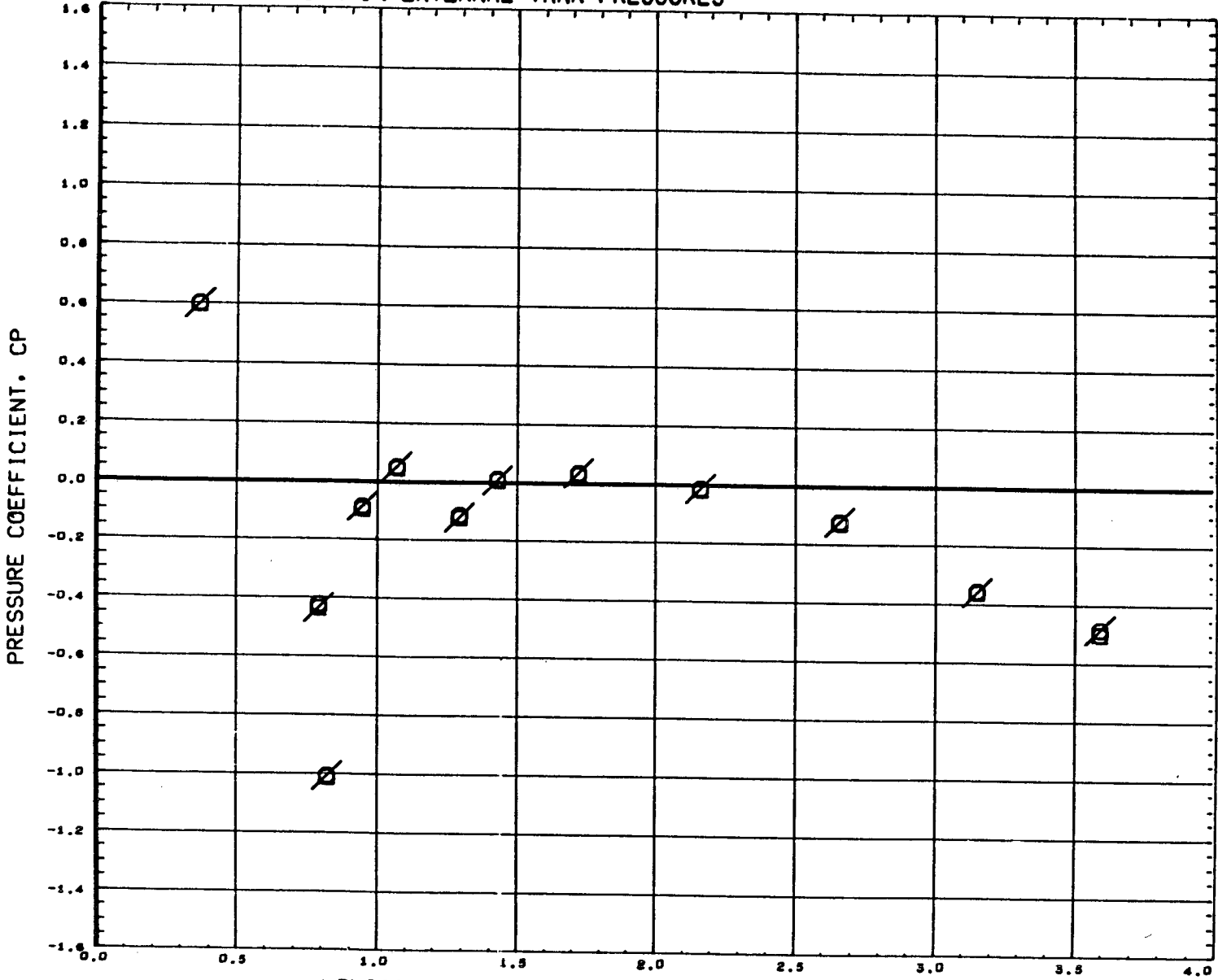


SYMBOL
 O
 PHI 45.000 - 10.000
 MACH 0.800

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



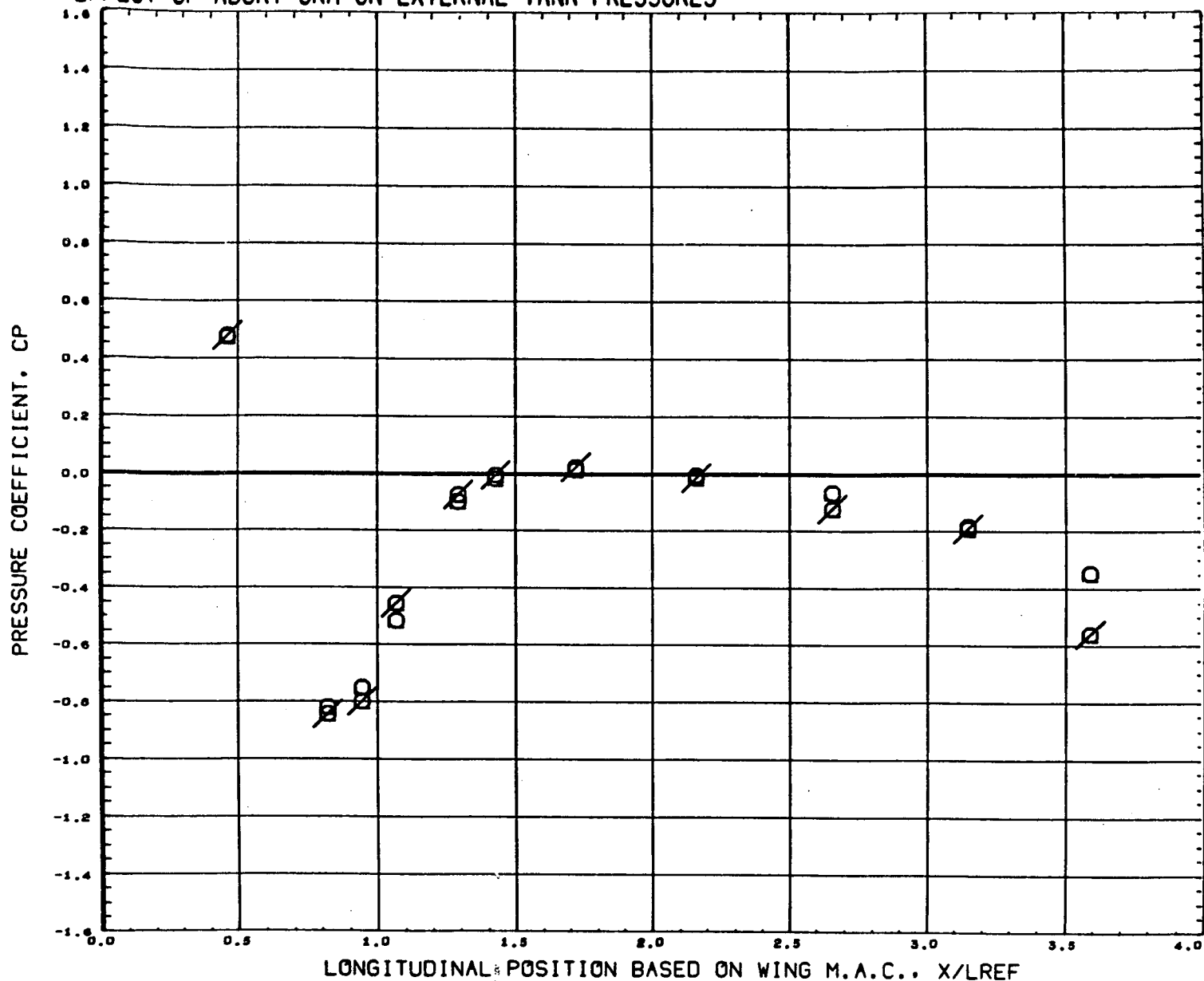
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \bigcirc PHI 30.000 - 10.000 ALPHA 0.800 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

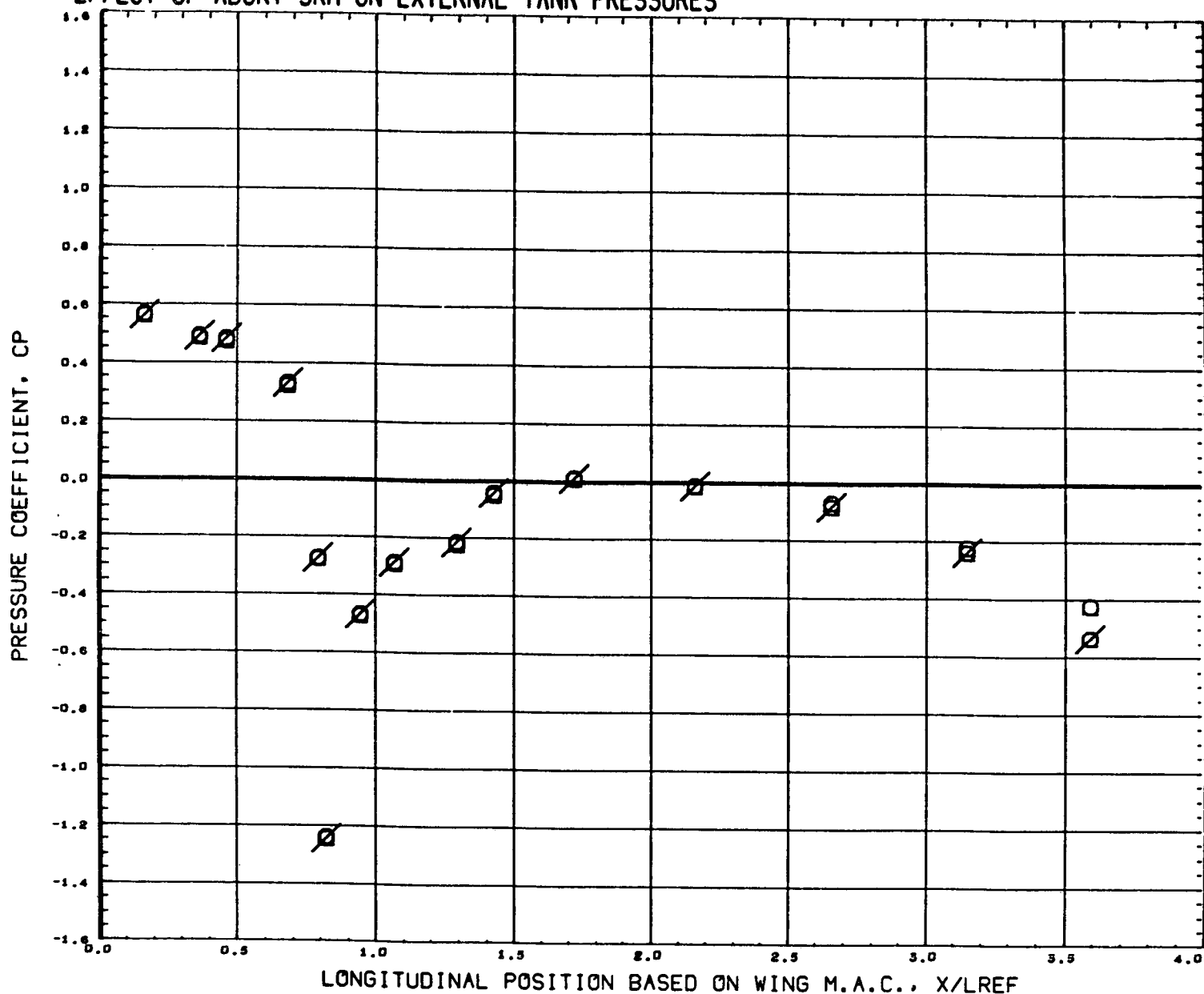


SYMBOL \bigcirc PHI 60.000 - ALPHA 4.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

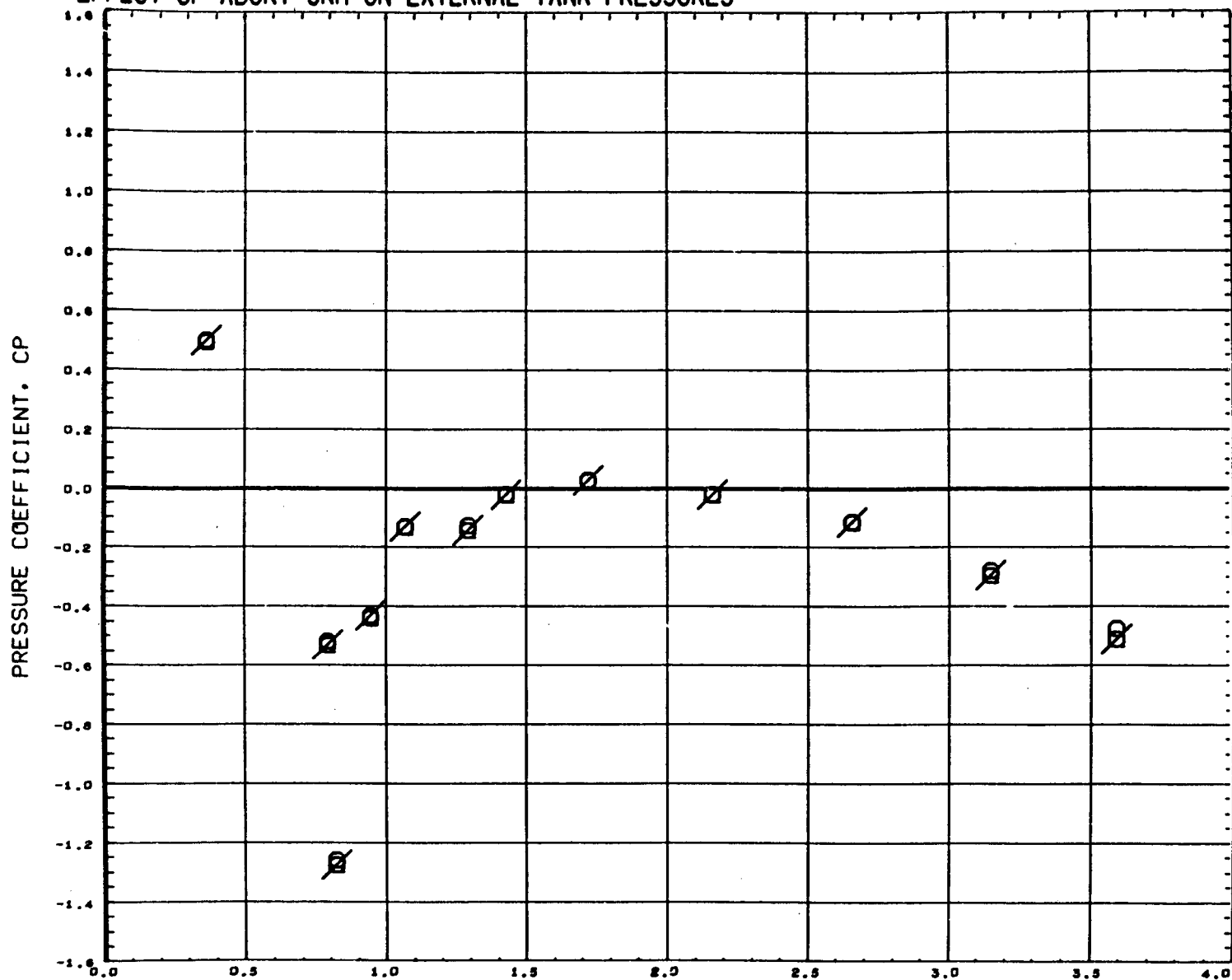


SYMBOL \circ PHI 40.000 - 4.000 ALPHA 0.000 MACH 0.000

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBCAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



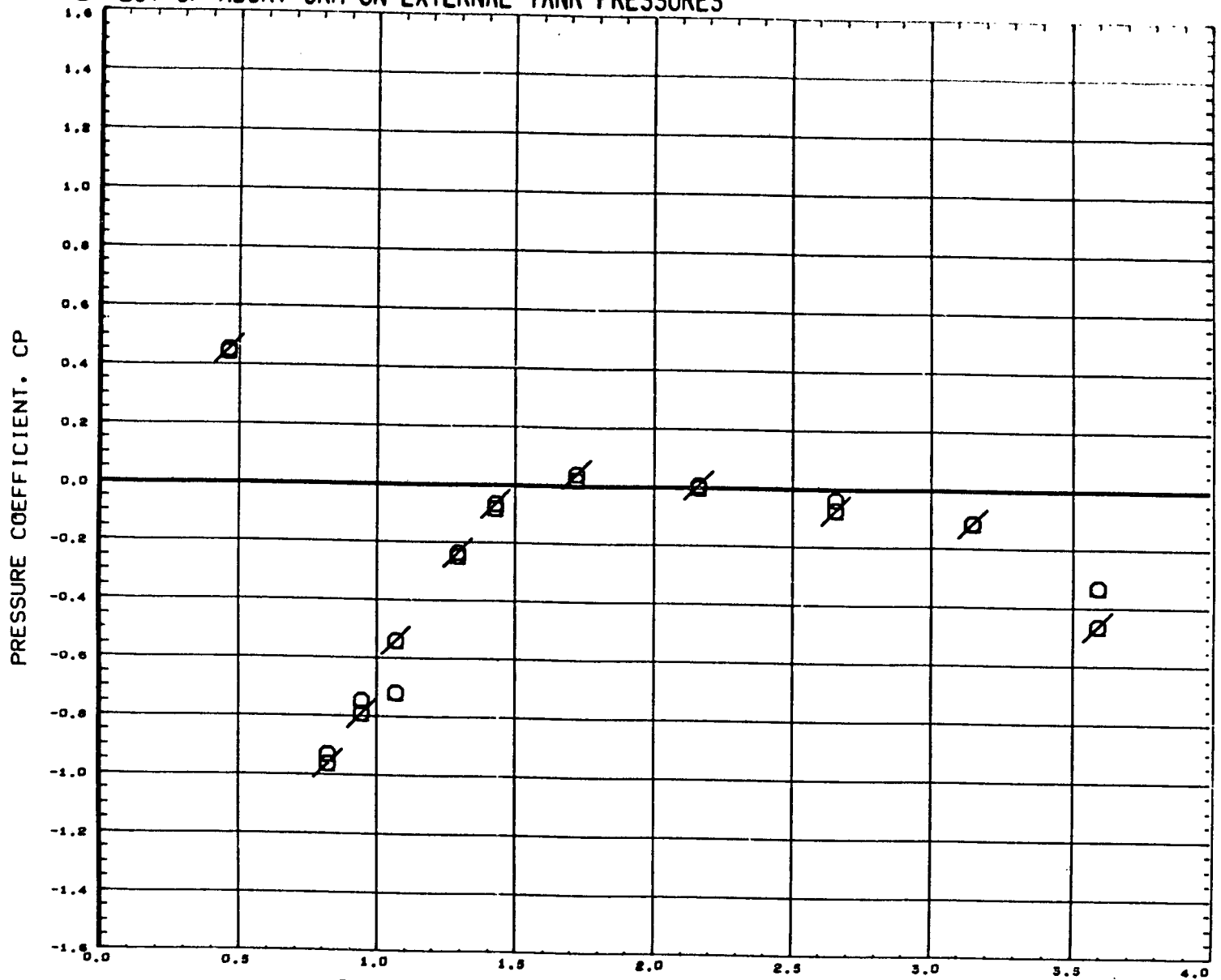
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \bigcirc PHI 30.000 ALPHA 4.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



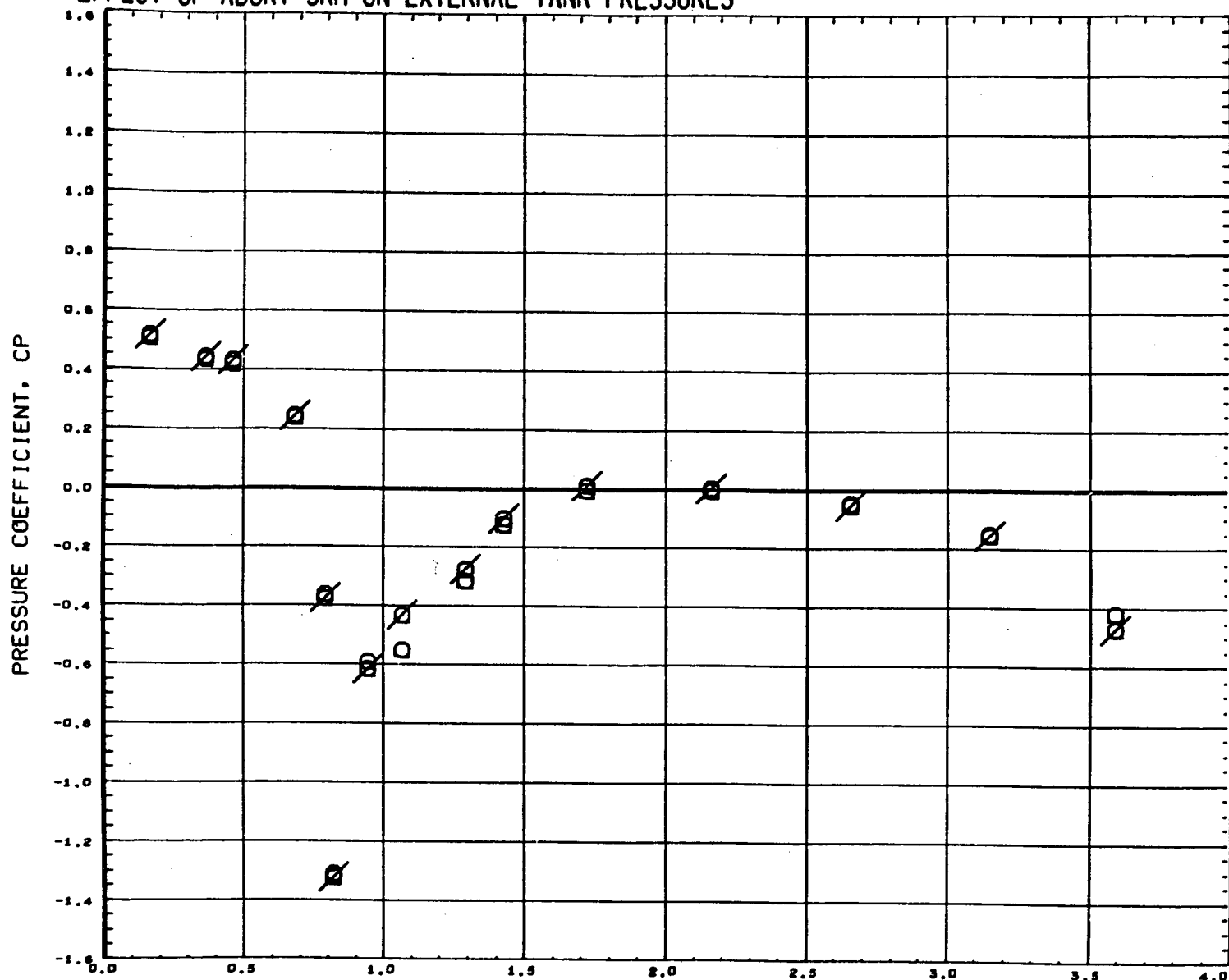
SYMBOL \square PHI 60.000 ALPHA 0.000 MACH 0.800

LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBCAP 0.025

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(P701TK)	OPEN	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK)	FLAGGED	MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

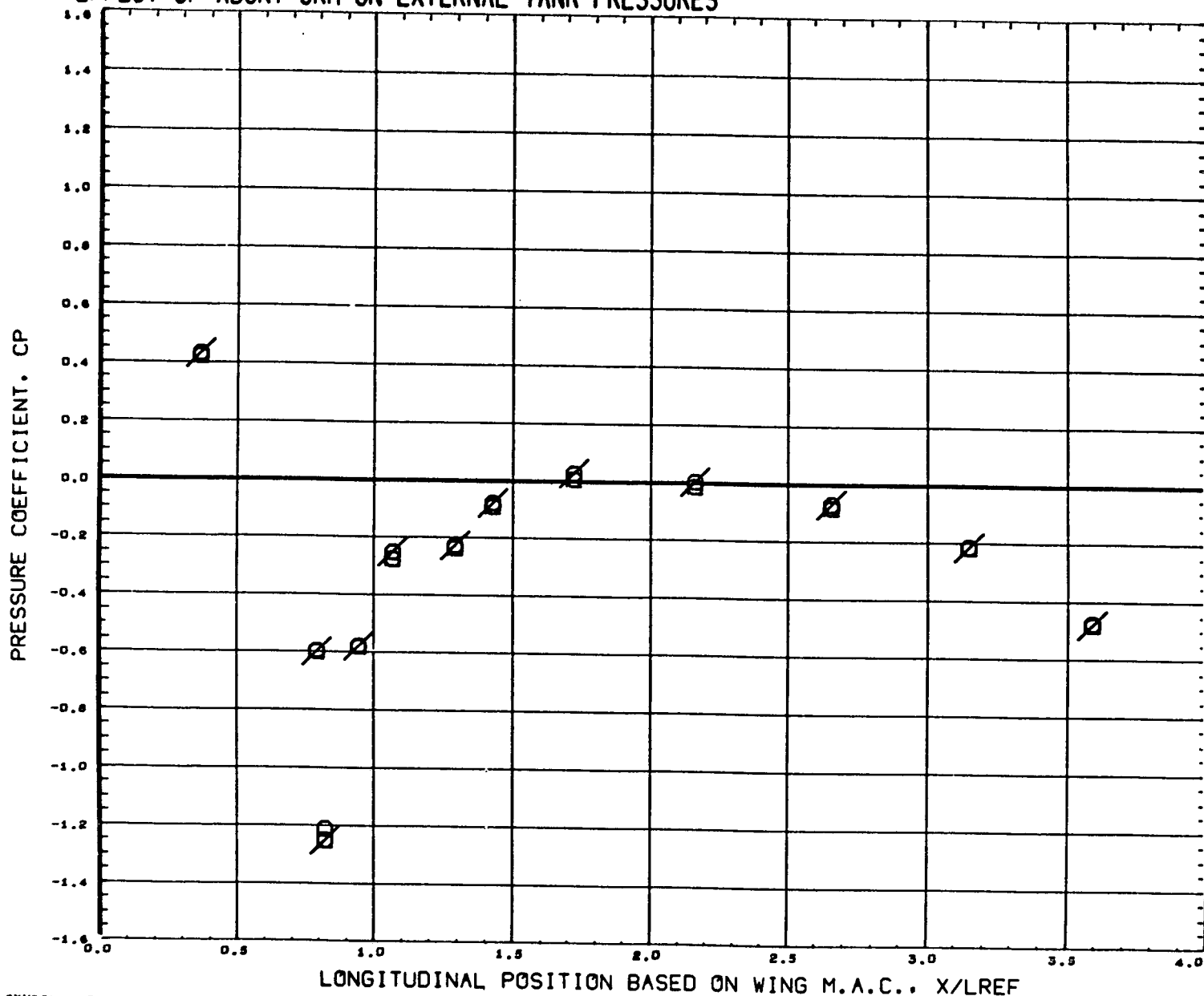
SYMBOL \bigcirc PHI 45.000 ALPHA 0.000 MACH 0.800

BETA 0.000 SRBGAP 0.025

PARAMETRIC VALUES
0.000 ORBINC - 1.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

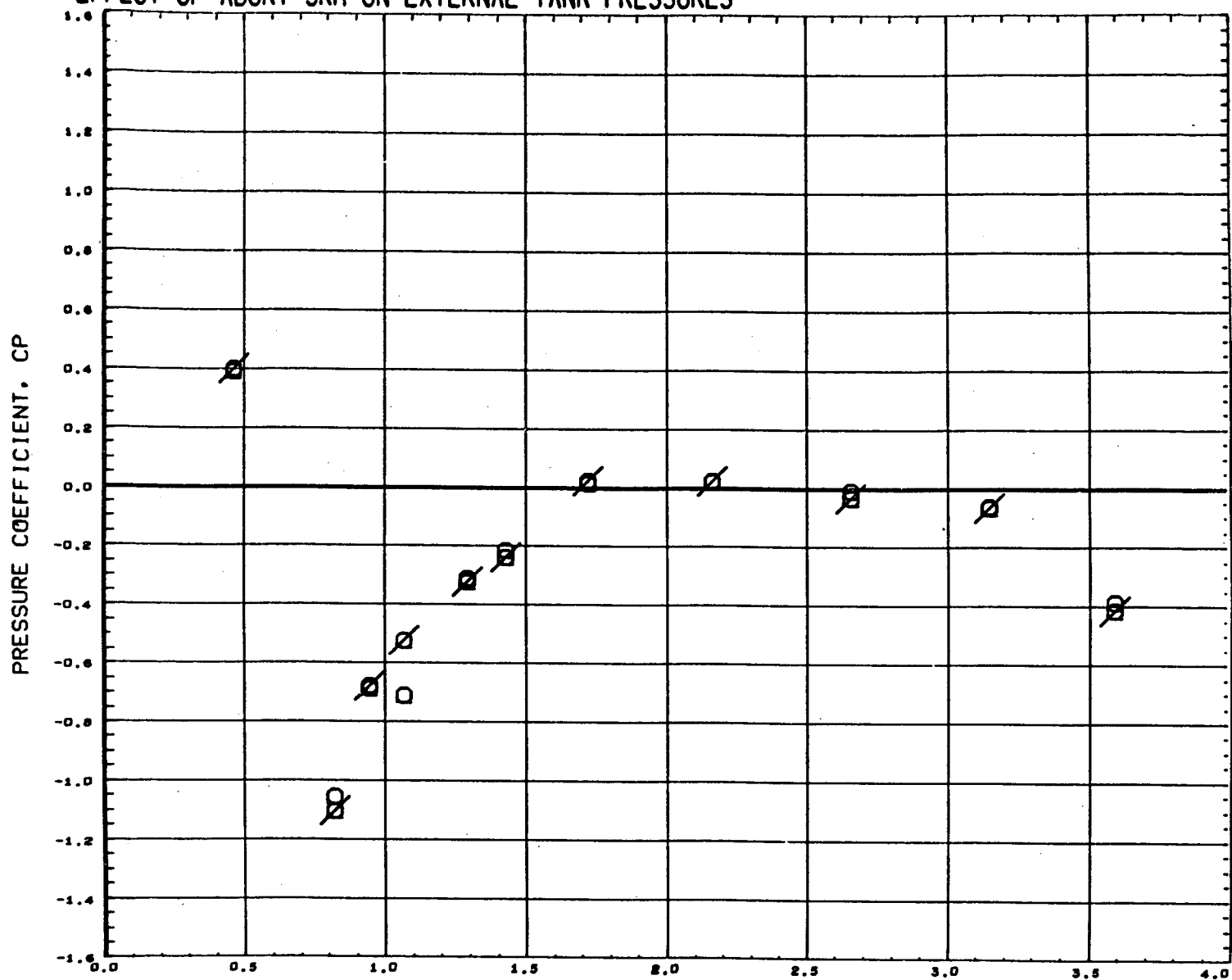


SYMBOL \bigcirc PHI 30.000 ALPHA 0.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



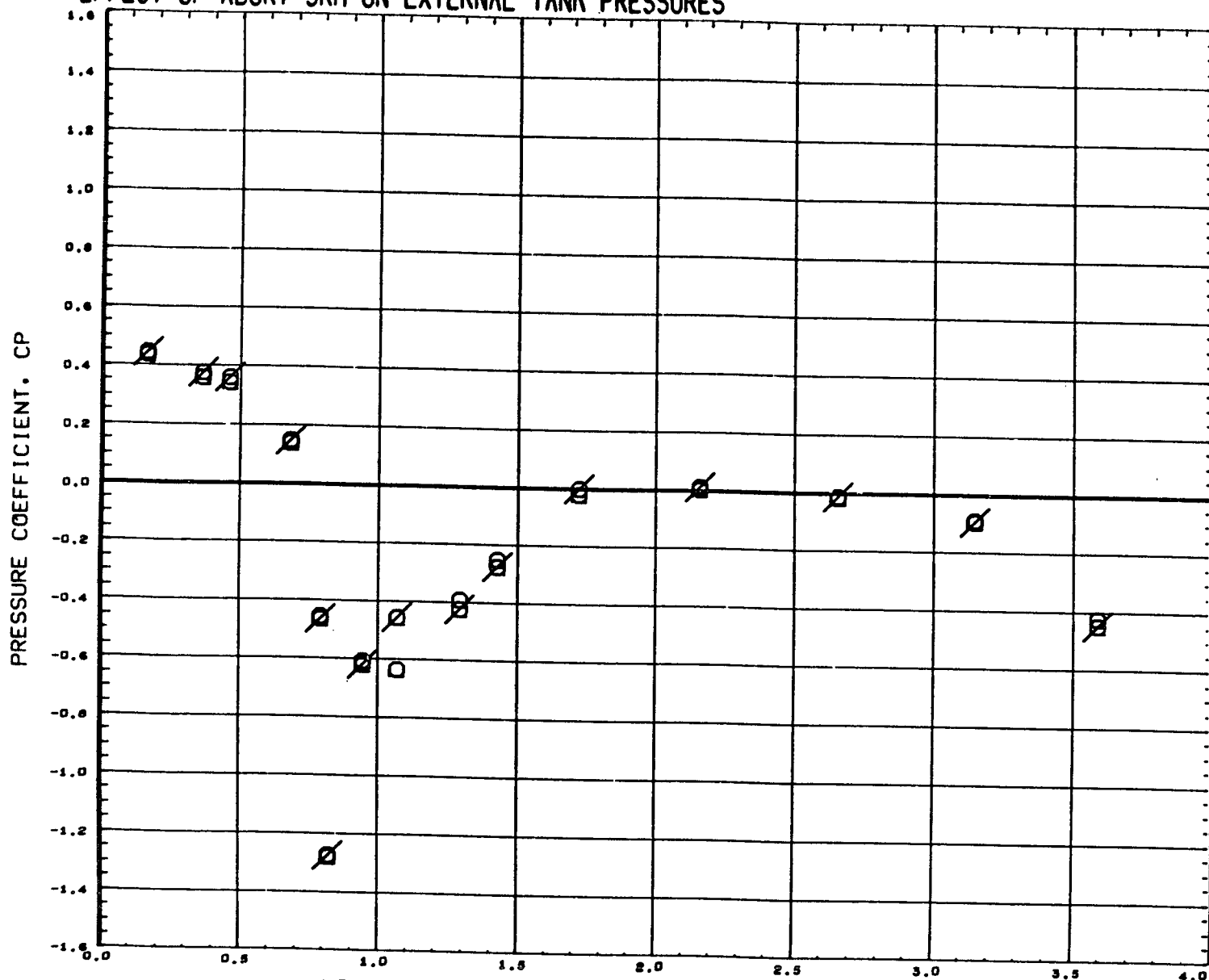
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \bigcirc PHI 60.000 ALPHA 4.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



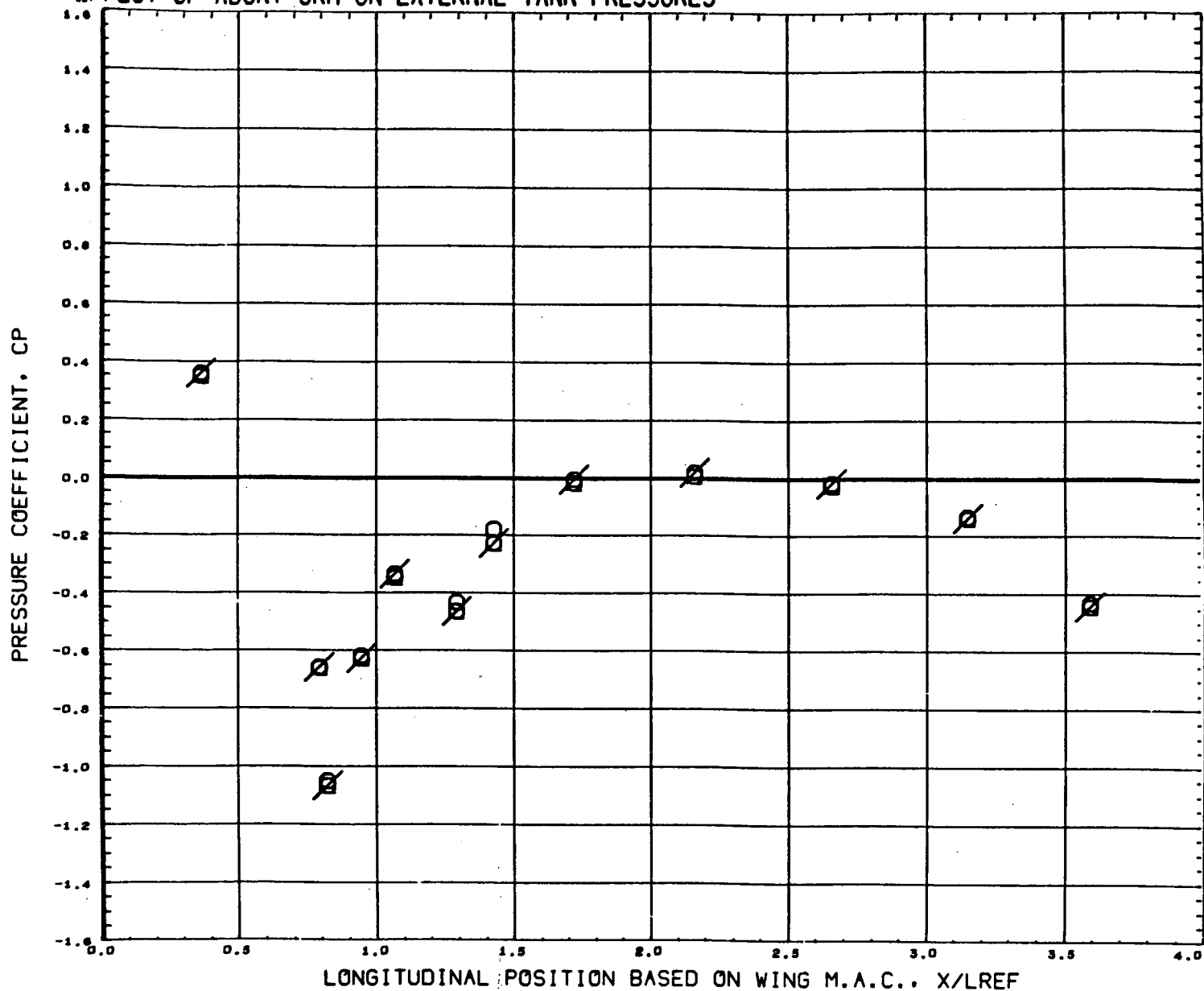
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \bigcirc PHI 45.000 ALPHA 4.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

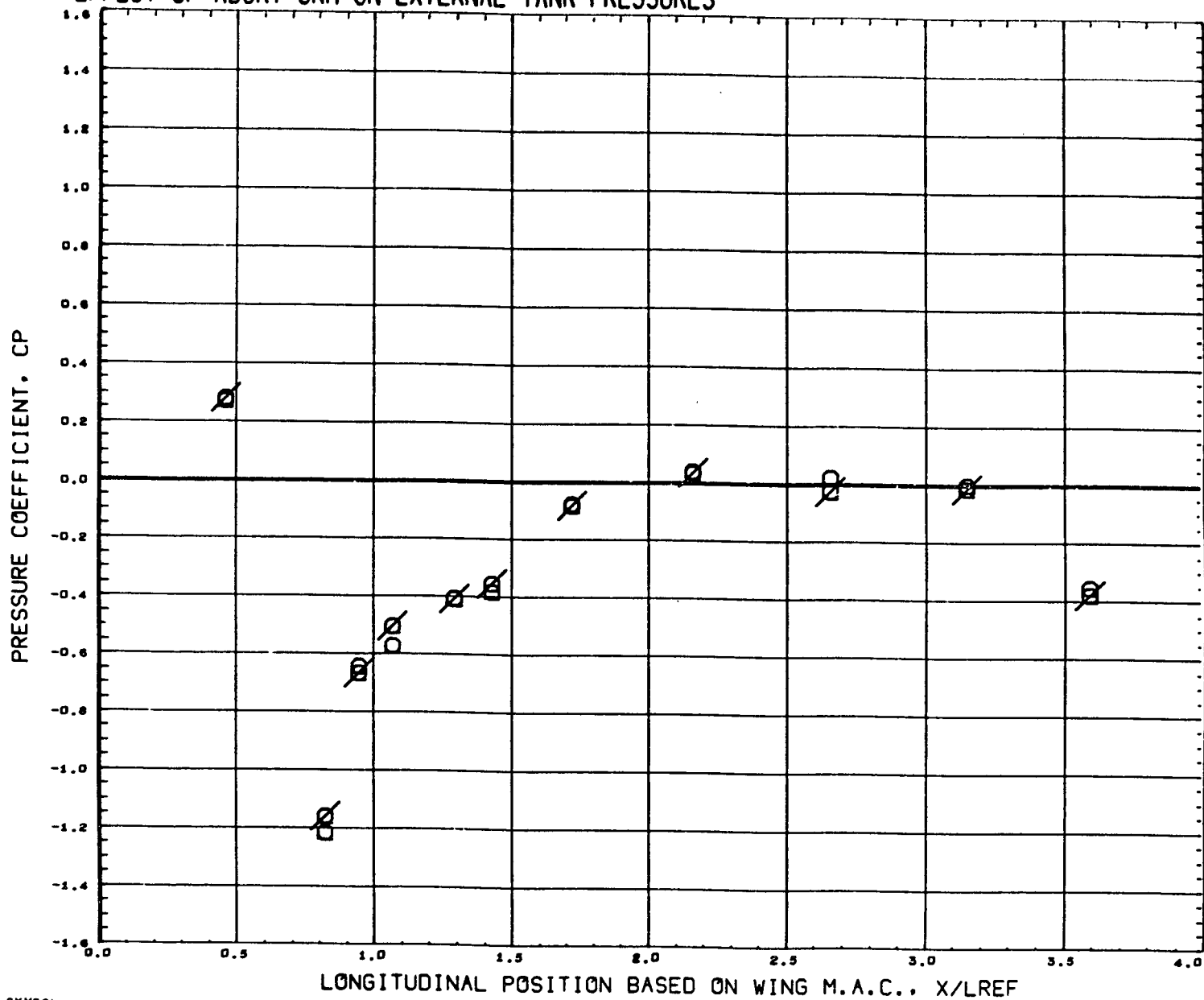


SYMBOL \bigcirc PHI 30.000 ALPHA 4.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

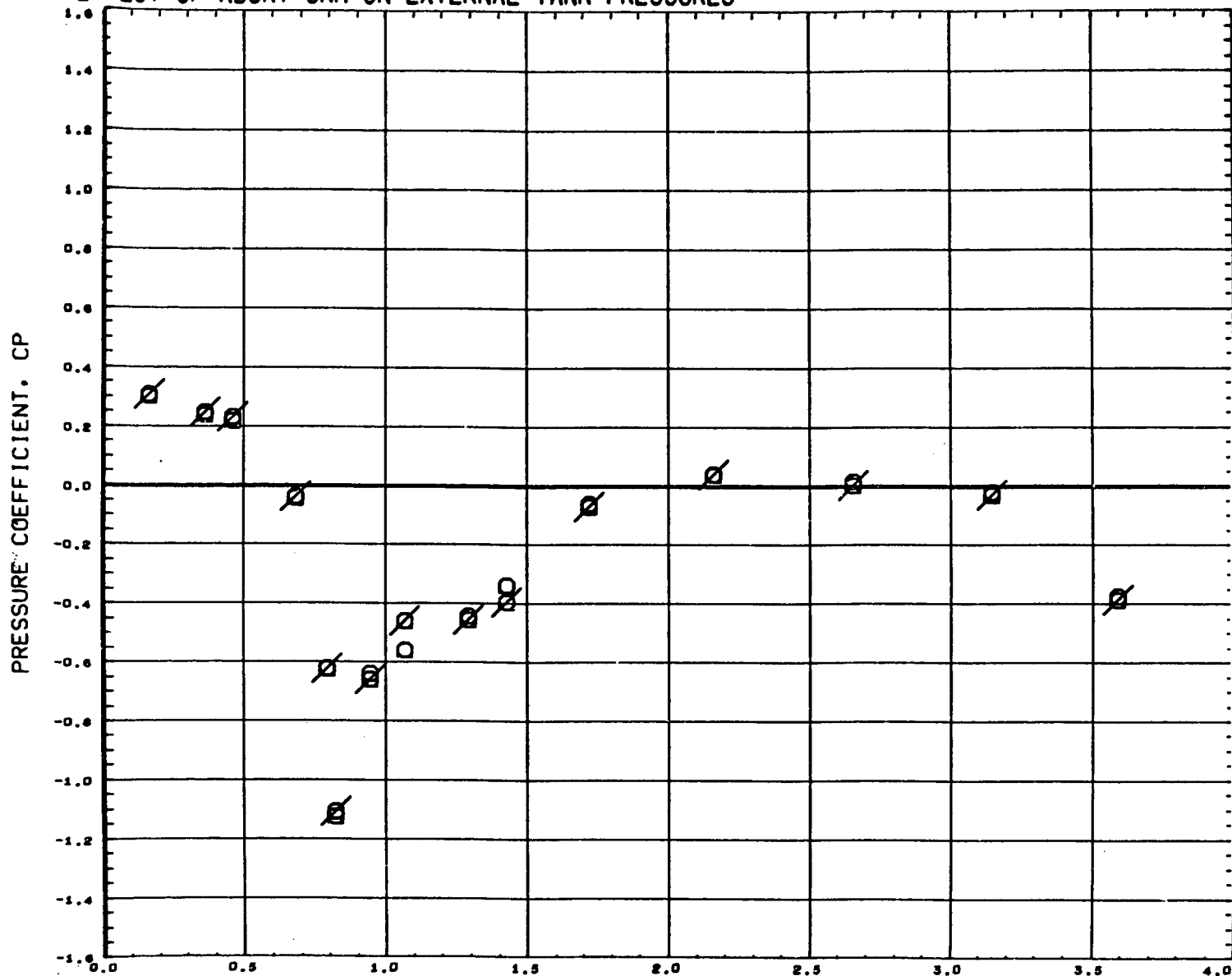


SYMBOL
 O PHI 60.000 ALPHA 10.000 MACH 0.800

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES



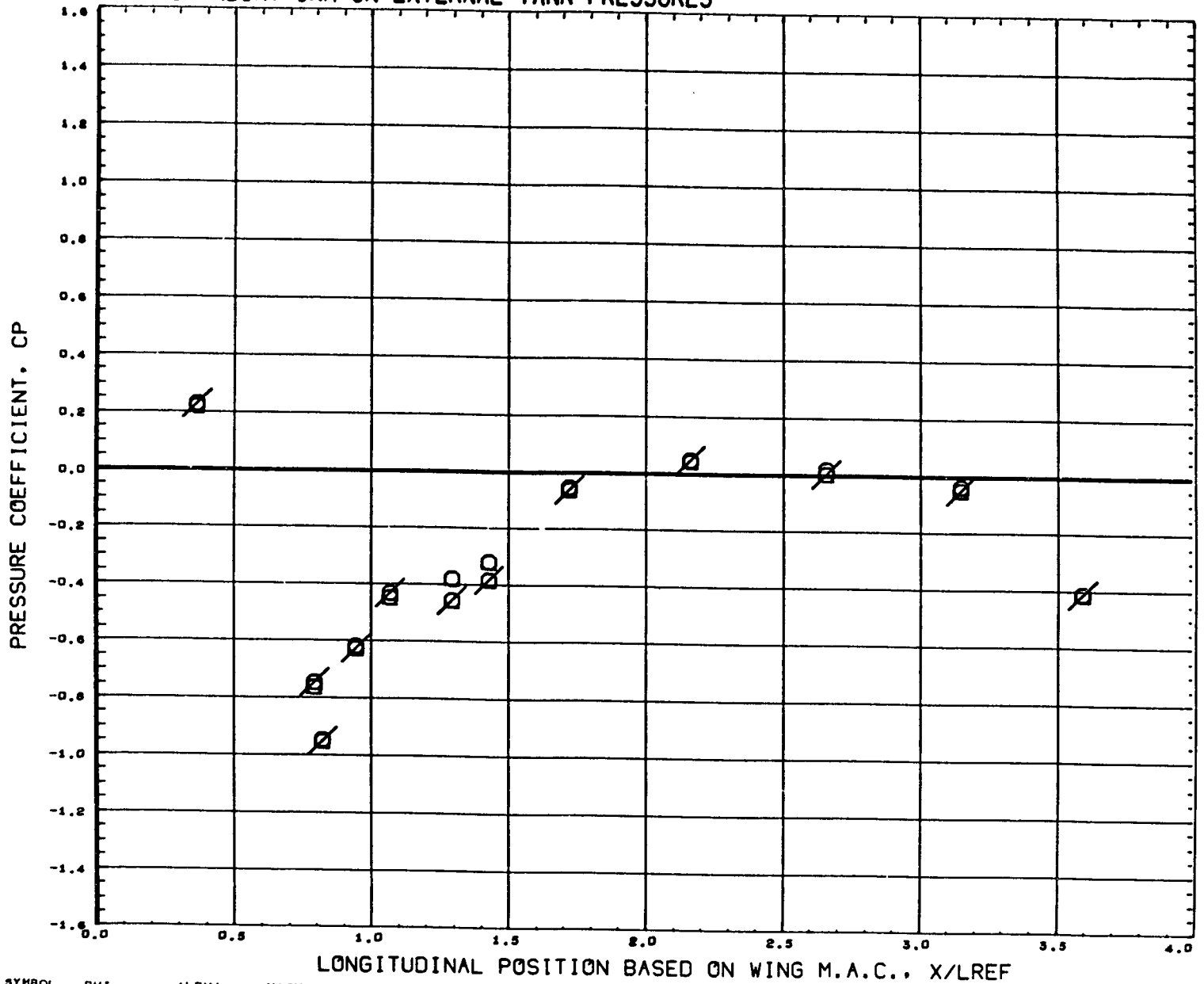
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL PHI ALPHA MACH
 O 45.000 10.000 0.800

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P701TK) OPEN MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (R709TK) FLAGGED MSFC 543-D49 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON EXTERNAL TANK PRESSURES

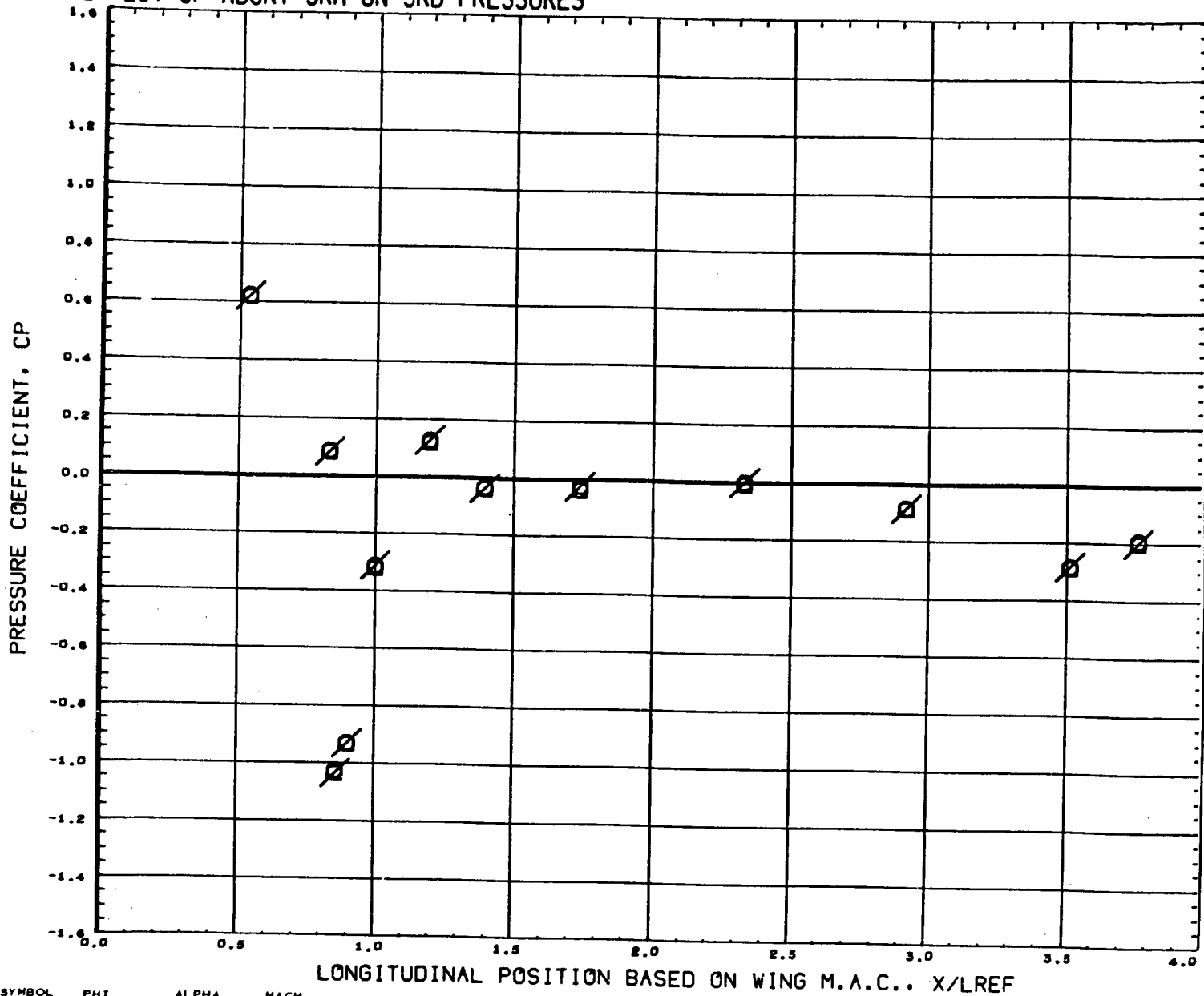


SYMBOL \bigcirc PHI 30.000 ALPHA 10.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701TK) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709TK) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

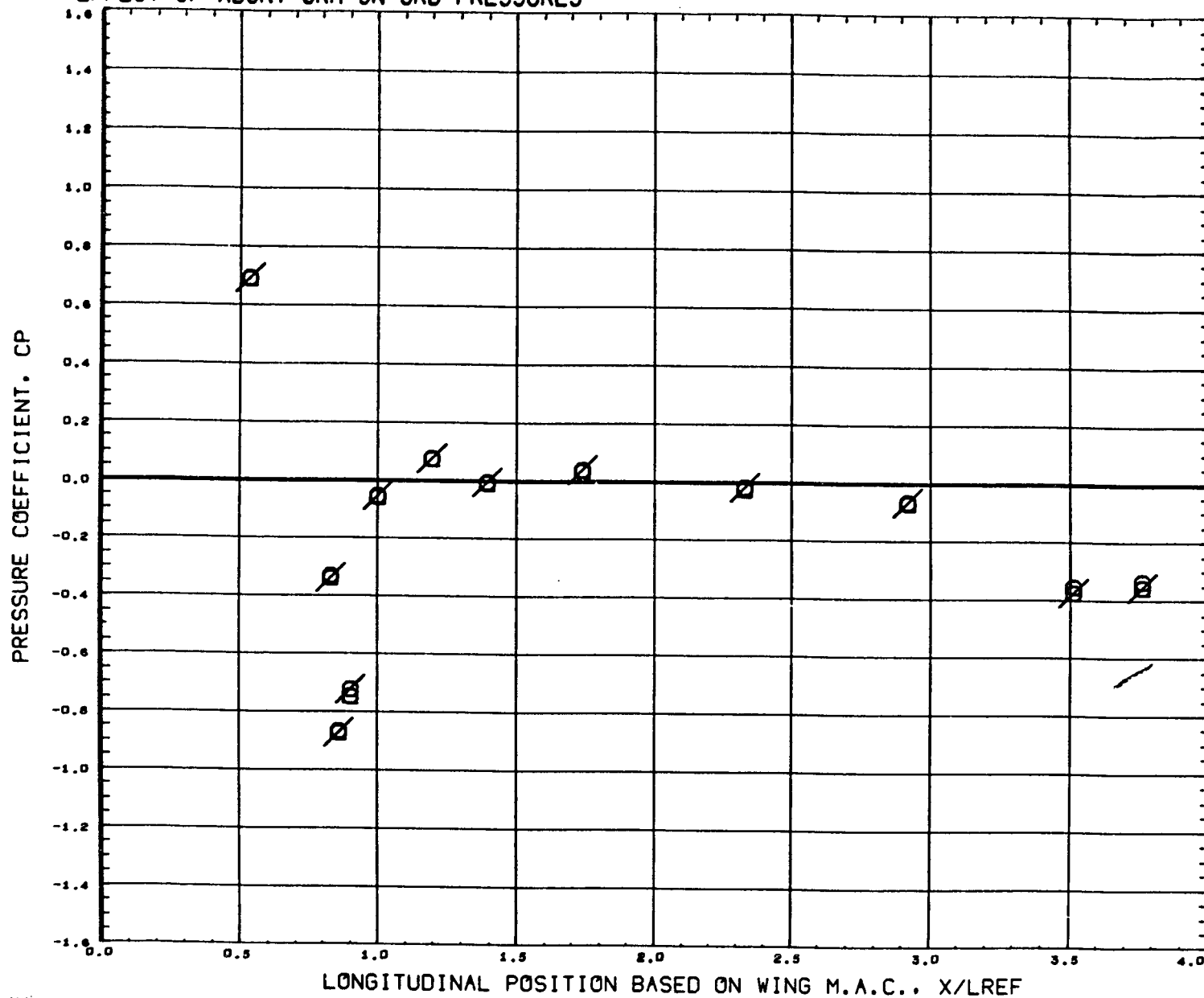


SYMBOL \bigcirc PHI 270.000 ALPHA - 10.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SH) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SH) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

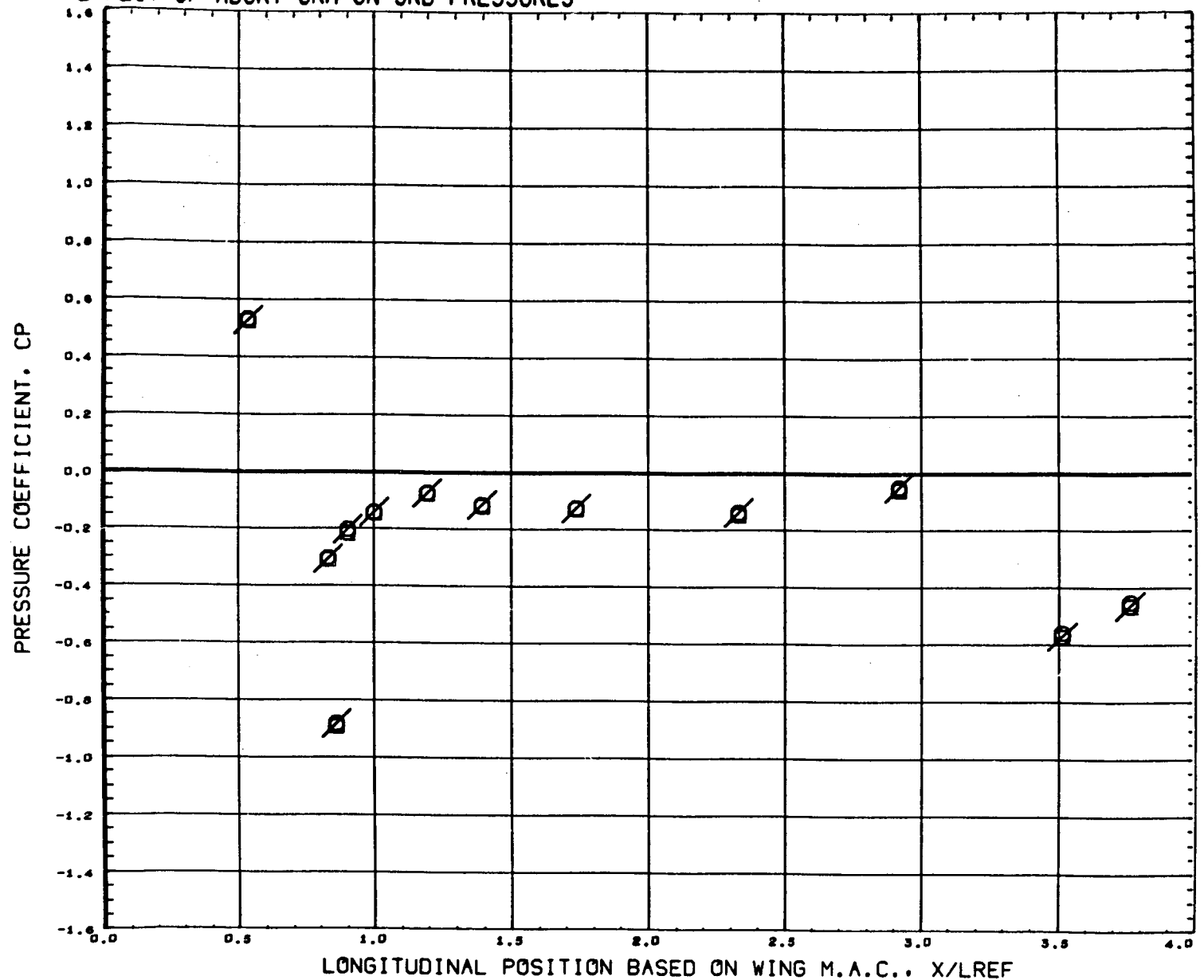


SYMBOL \bigcirc PHI 315.000 ALPHA 10.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(PT01SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \bigcirc PHI 0.000 - 10.000 ALPHA 0.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

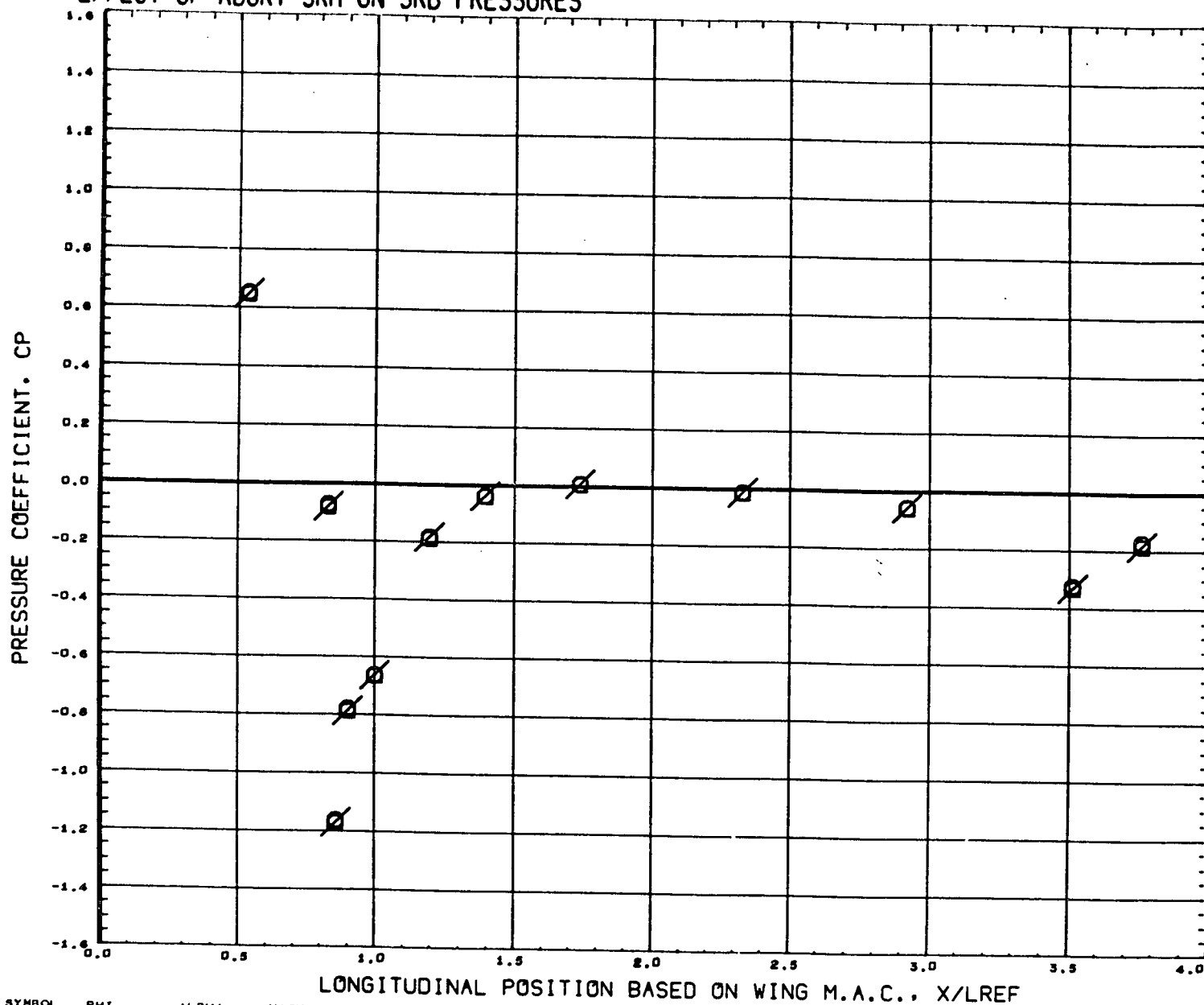
NOTE- SRB NOSE LOCATED AT X/LREF=.369

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P701SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

(R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

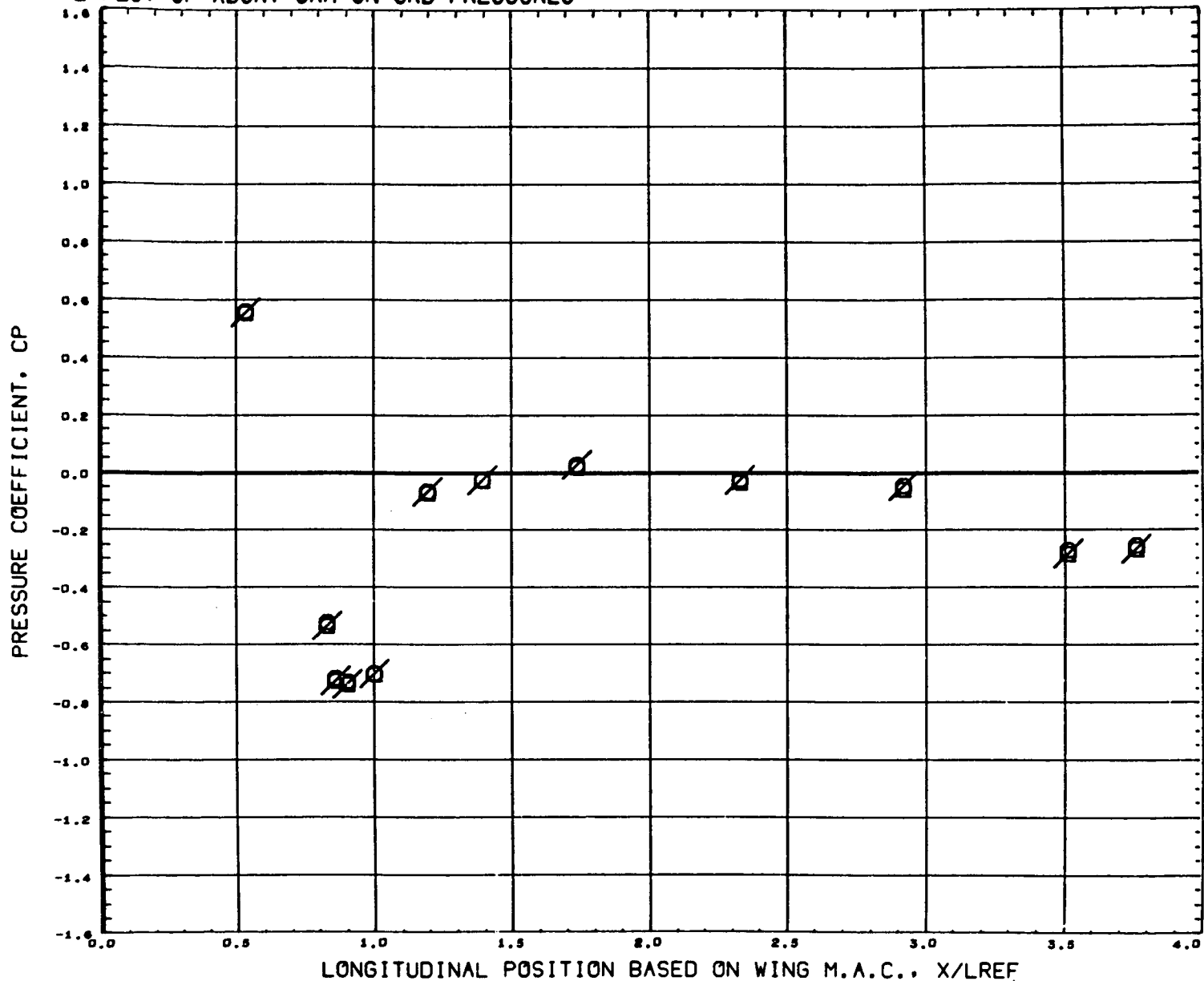


SYMBOL PHI ALPHA MACH
Q 270.000 - 4.000 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SM) OPEN MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SM) FLAGGED MSFC 543-D49 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

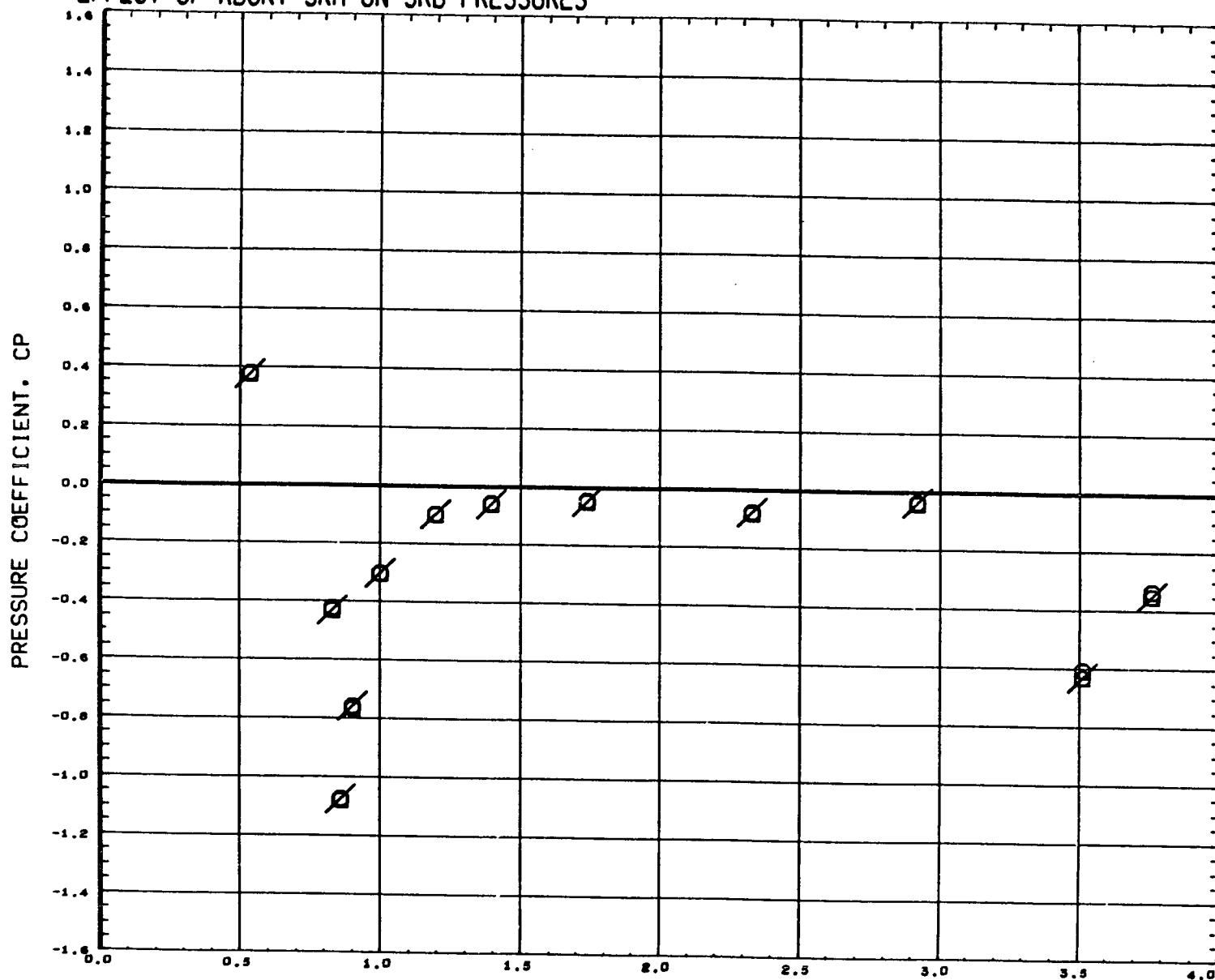


SYMBOL PHI ALPHA MACH
 O 315.000 - 4.000 0.800

PARAMETRIC VALUES
 BETA 0.000 ORBINC - 1.500
 SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.389
 DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P7015M) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (R7095M) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES



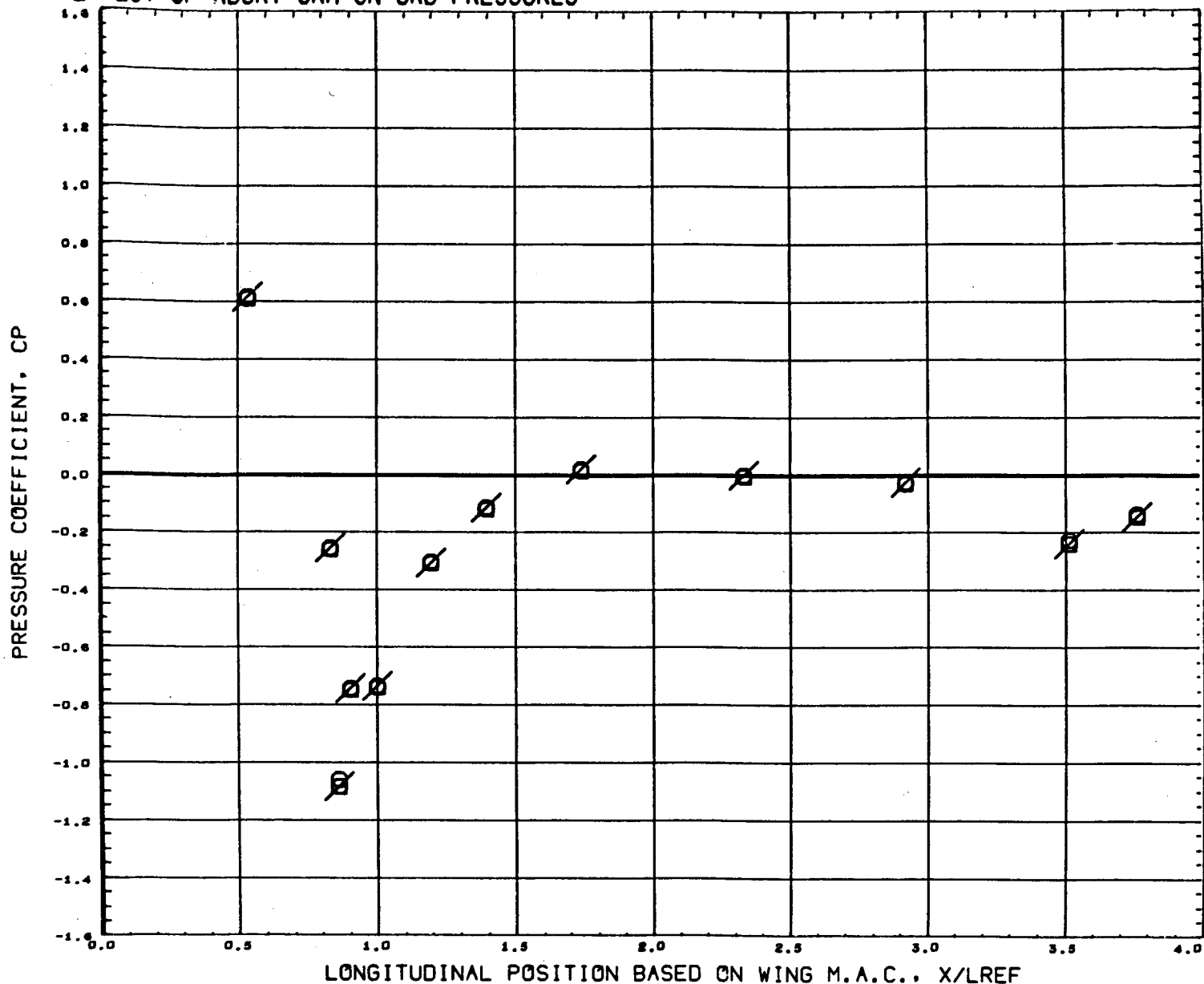
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \circ PHI 0.000 - 4.000 ALPHA 0.000 MACH 0.000

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=3.69
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SH) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SH) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

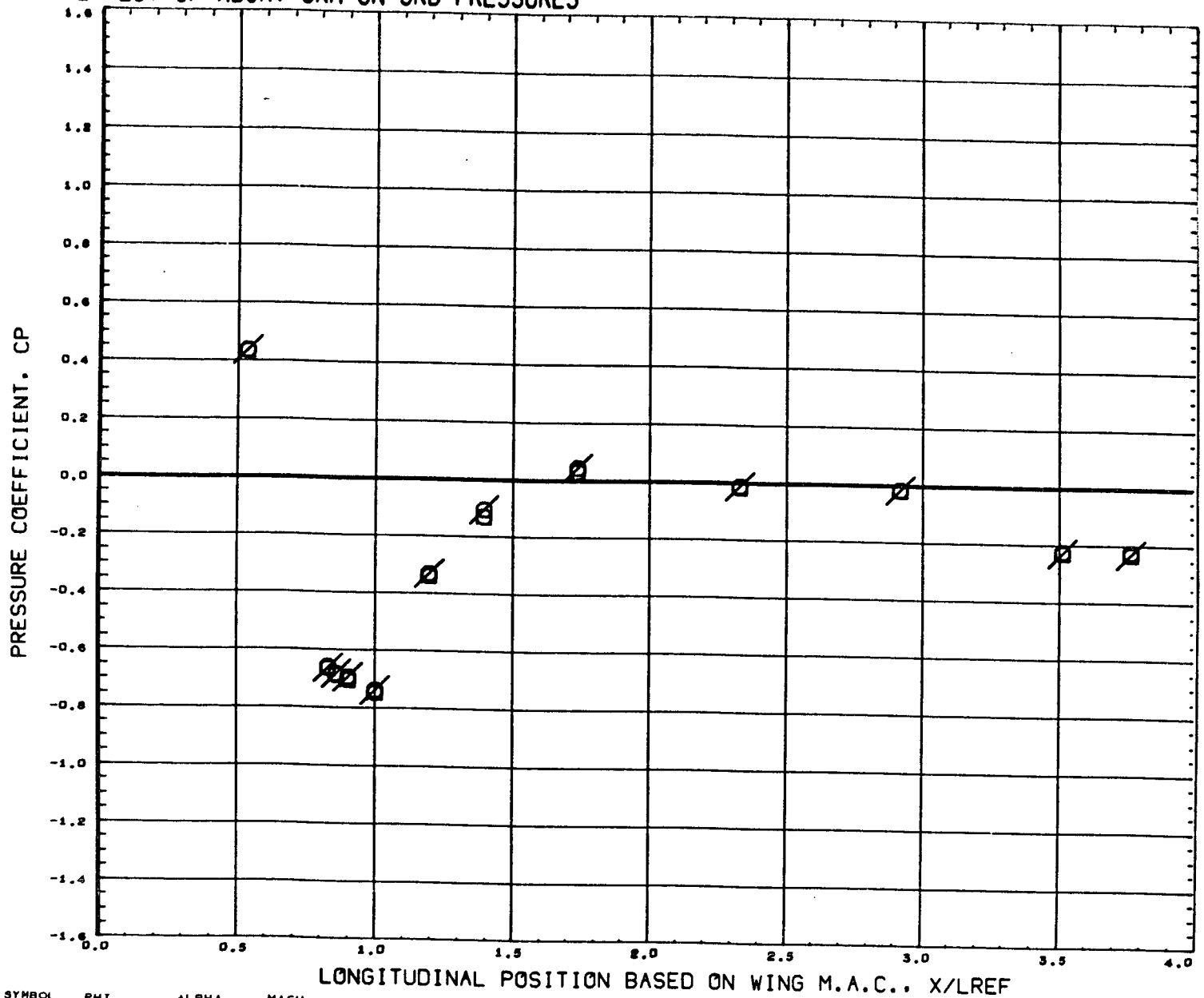
EFFECT OF ABORT SRM ON SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	270.000	0.000	0.800	BETA	0.000 ORBINC - 1.500
				SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
 DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P701SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

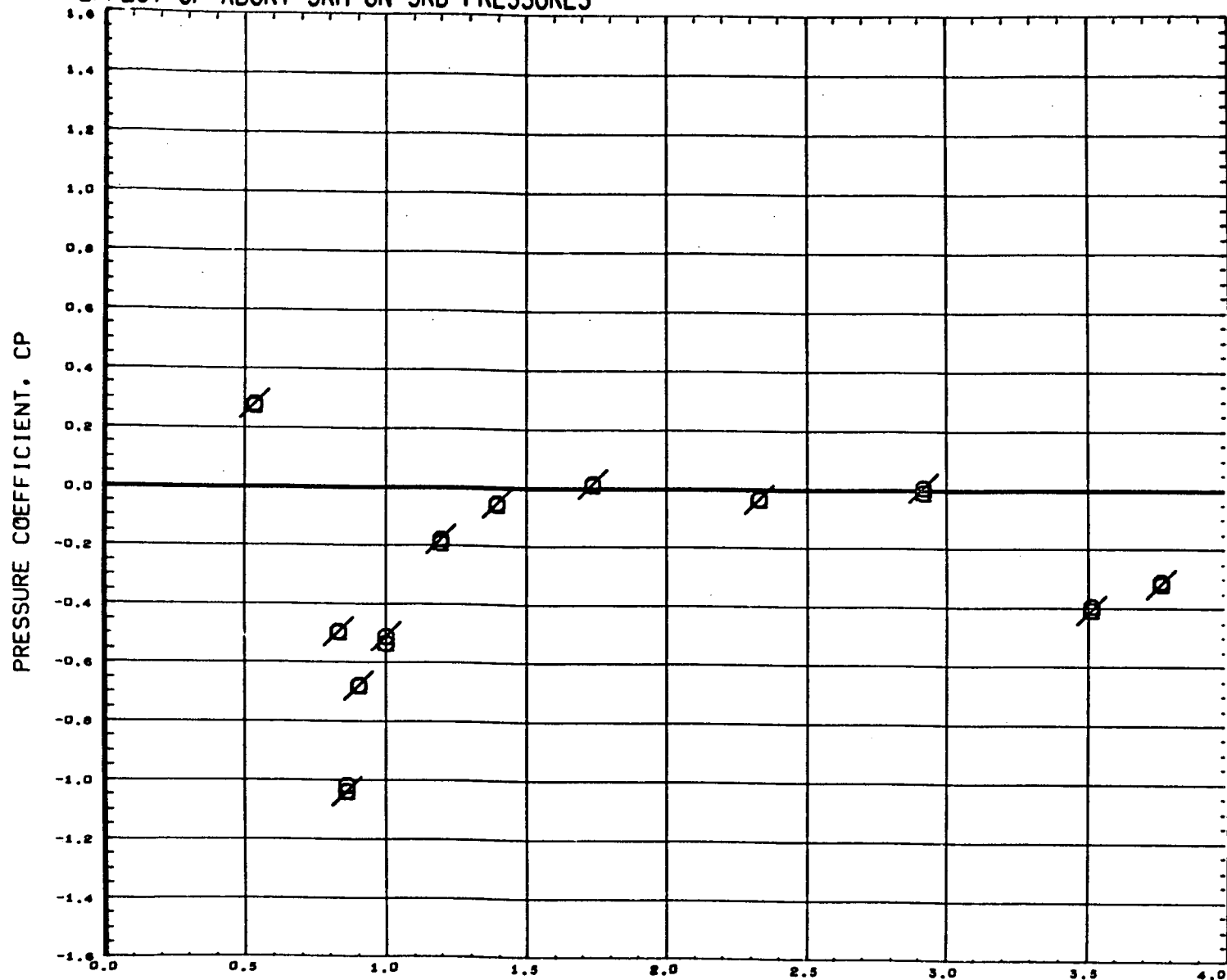


SYMBOL \bigcirc PHI 315.000 ALPHA 0.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SM) OPEN MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SM) FLAGGED MSFC 543-D49 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES



LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \odot PHI 0.000 ALPHA 0.000 MACH 0.000

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBCAP 0.025

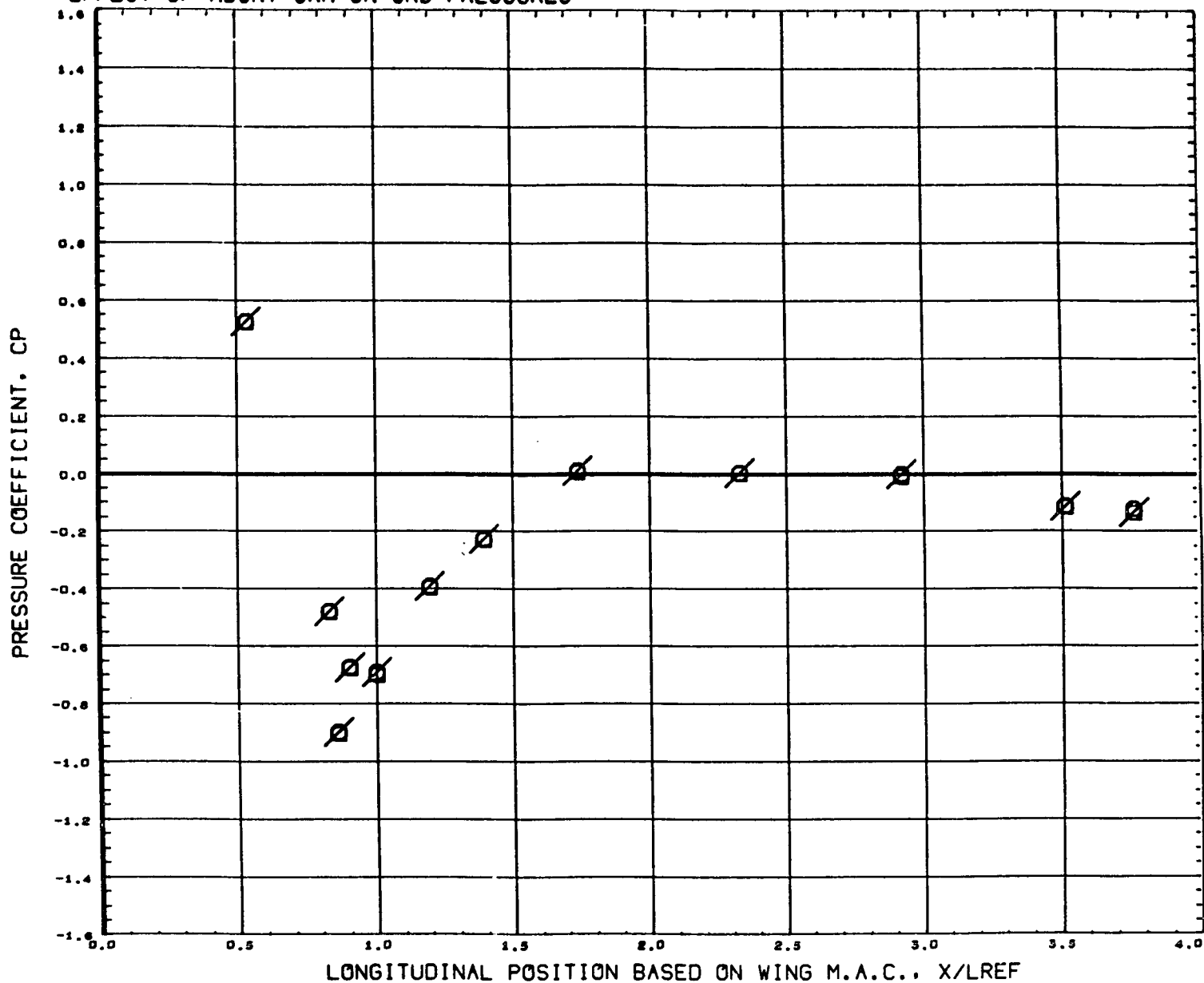
NOTE- SRB NOSE LOCATED AT X/LREF=.369

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P701SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

(R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

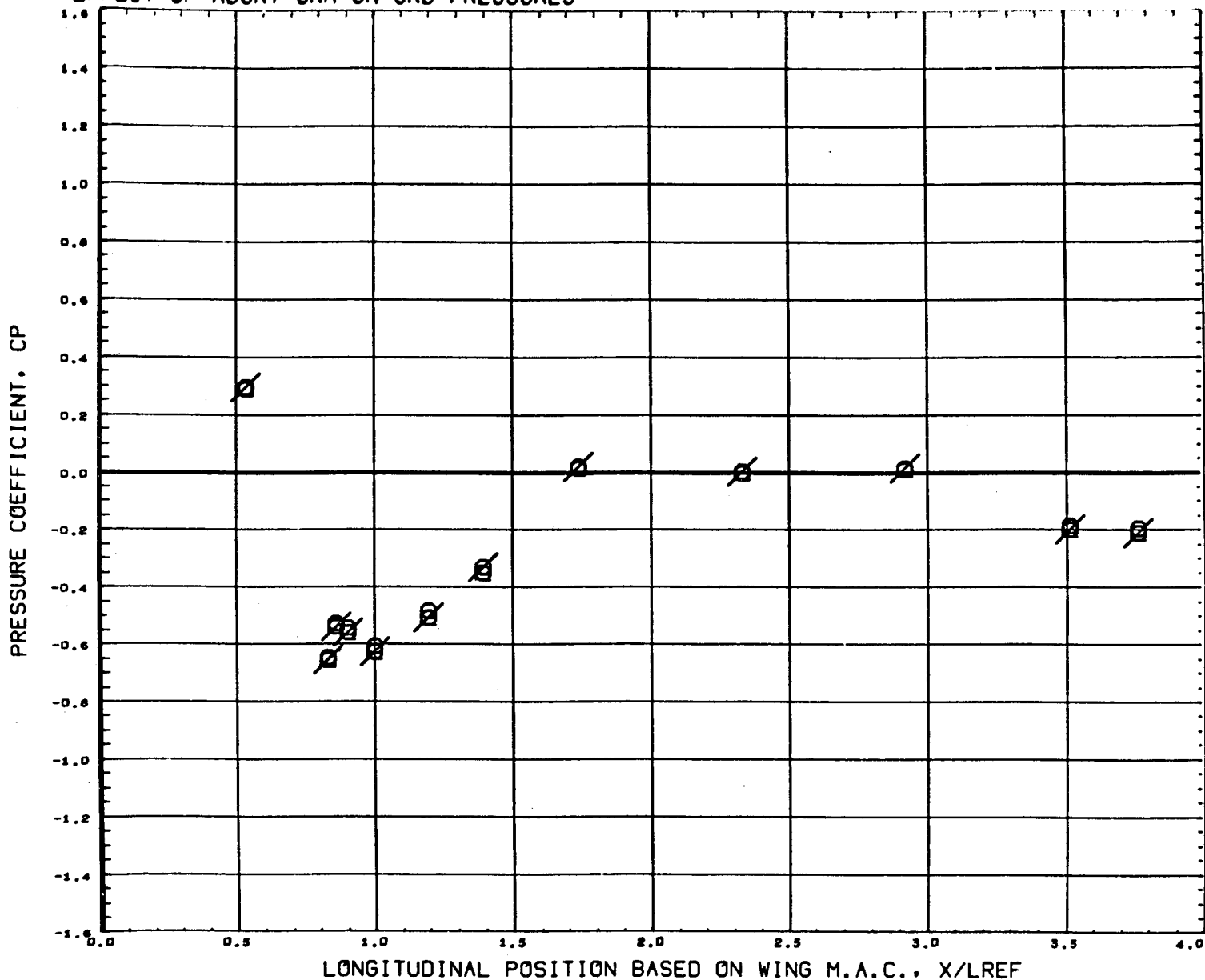


SYMBOL \bigcirc PHI 270.000 ALPHA 4.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

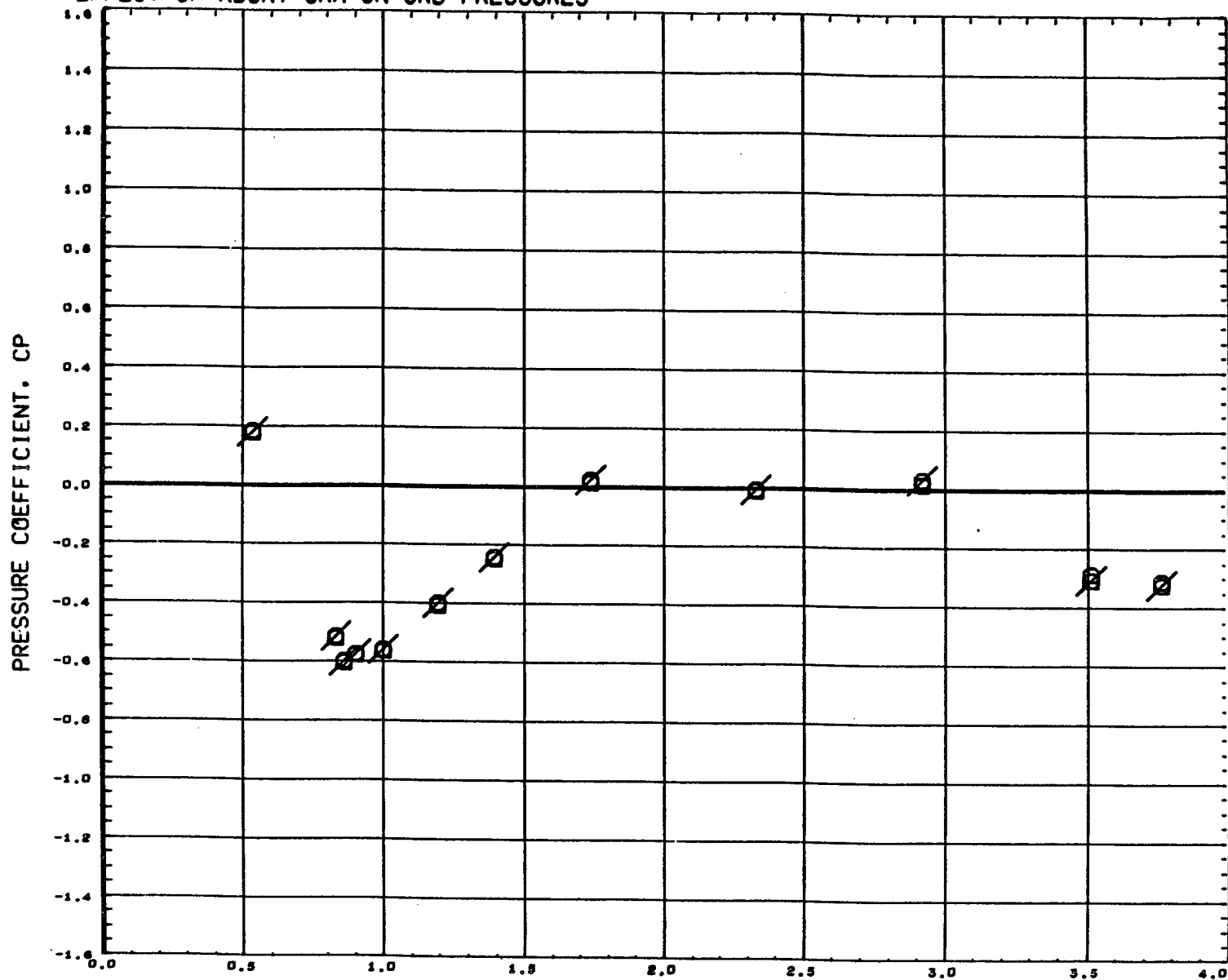
EFFECT OF ABORT SRM ON SRB PRESSURES



SYMBOL	PHI	ALPHA	MACH	PARAMETRIC VALUES	
○	315.000	4.000	0.800	BETA	0.000 ORBINC - 1.500
				SRBCAP	0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
 DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P7013M) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (R7098M) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES



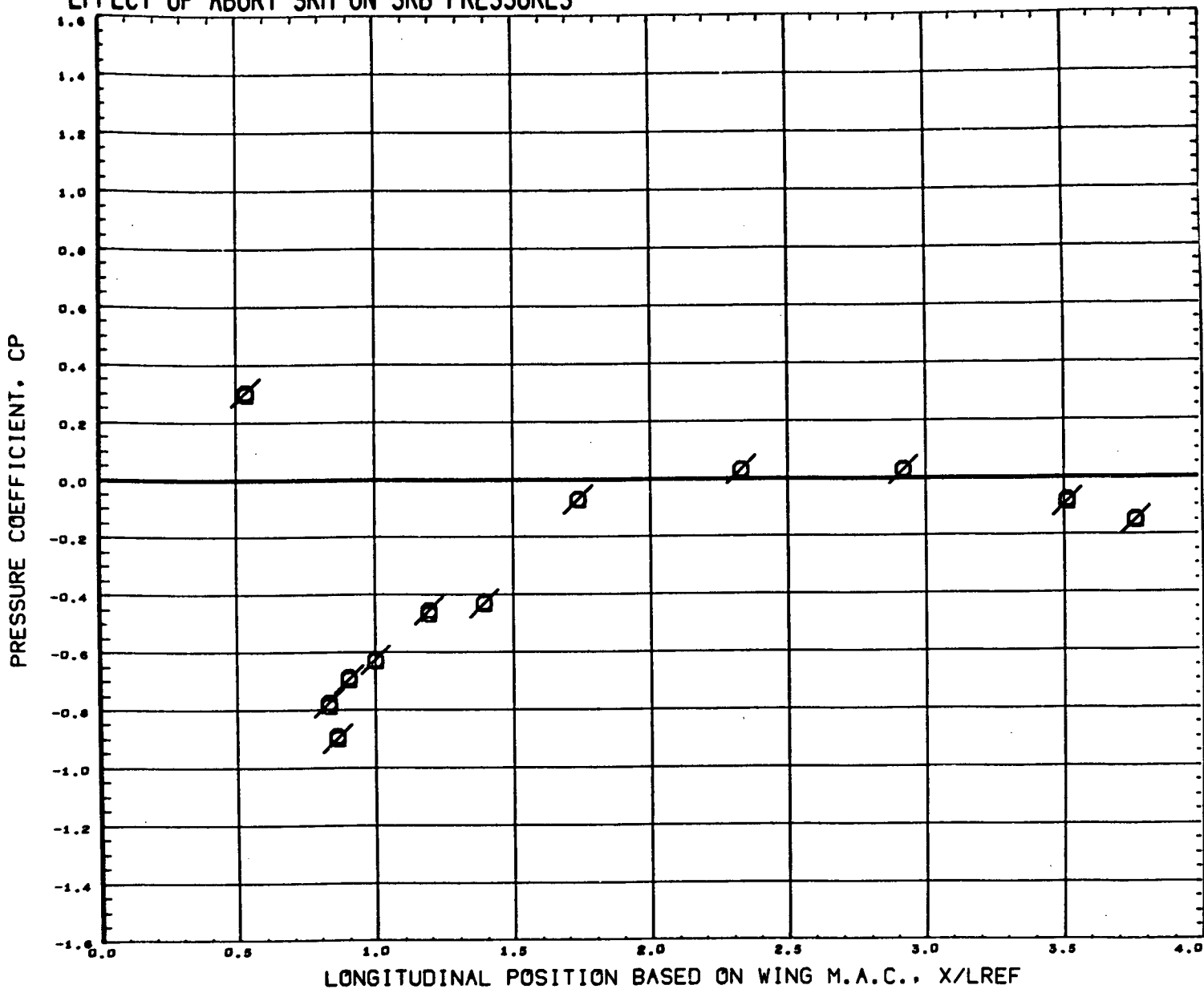
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL Q
PHI 0.000
ALPHA 4.000
MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORSINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SH) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SH) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES

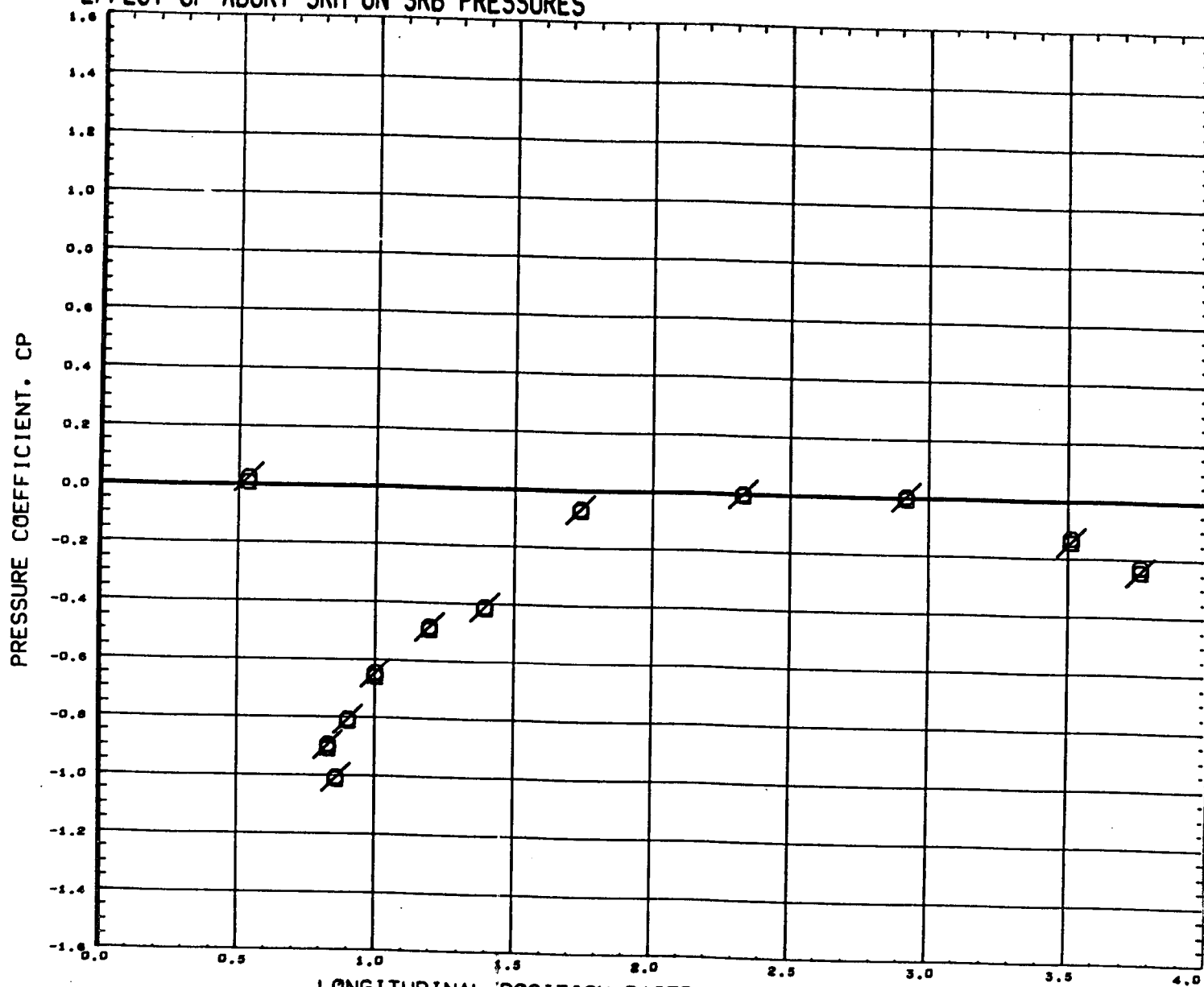


SYMBOL \bigcirc PHI 270.000 ALPHA 10.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES



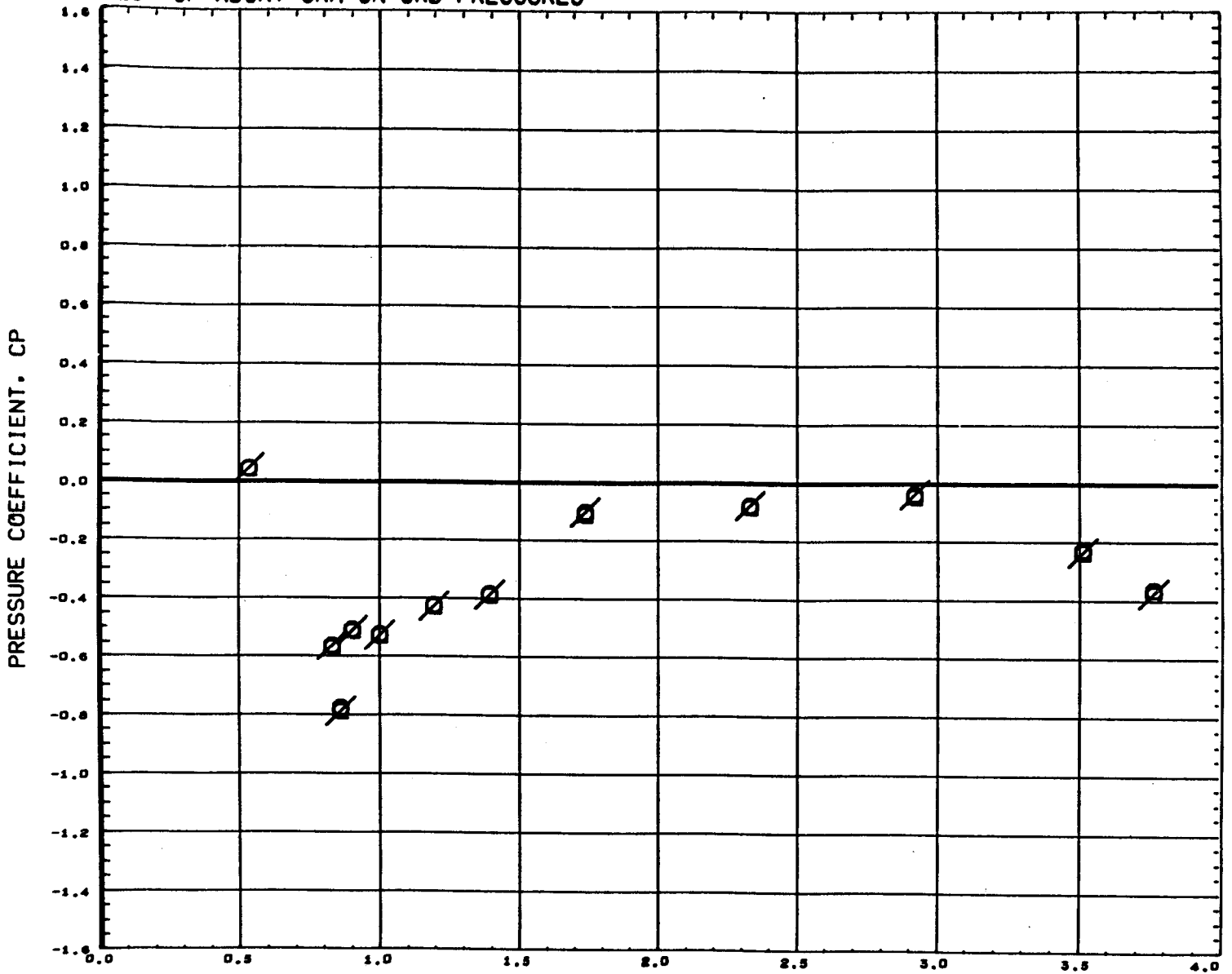
SYMBOL \bigcirc PHI 315.000 ALPHA 10.000 MACH 0.800

LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

BETA 0.000 ORBINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P7013M) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R7093M) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

EFFECT OF ABORT SRM ON SRB PRESSURES



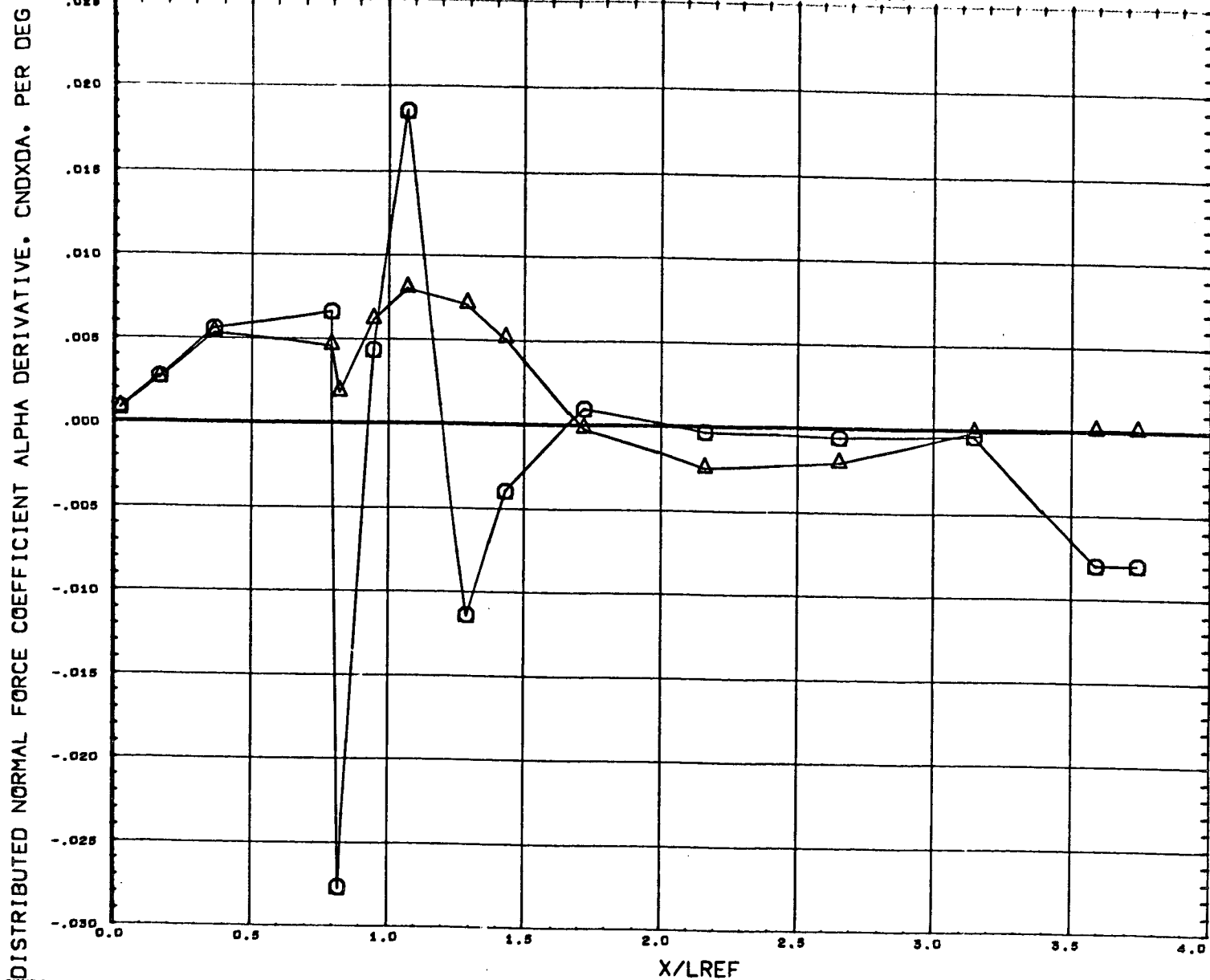
LONGITUDINAL POSITION BASED ON WING M.A.C., X/LREF

SYMBOL \bigcirc PHI 0.000 ALPHA 10.000 MACH 0.800

PARAMETRIC VALUES
BETA 0.000 ORSINC - 1.500
SRBGAP 0.025

NOTE- SRB NOSE LOCATED AT X/LREF=.369
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(P701SM) OPEN MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(R709SM) FLAGGED MSFC 543-049 LAUNCH CONFIGURATION, T1S102

NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK

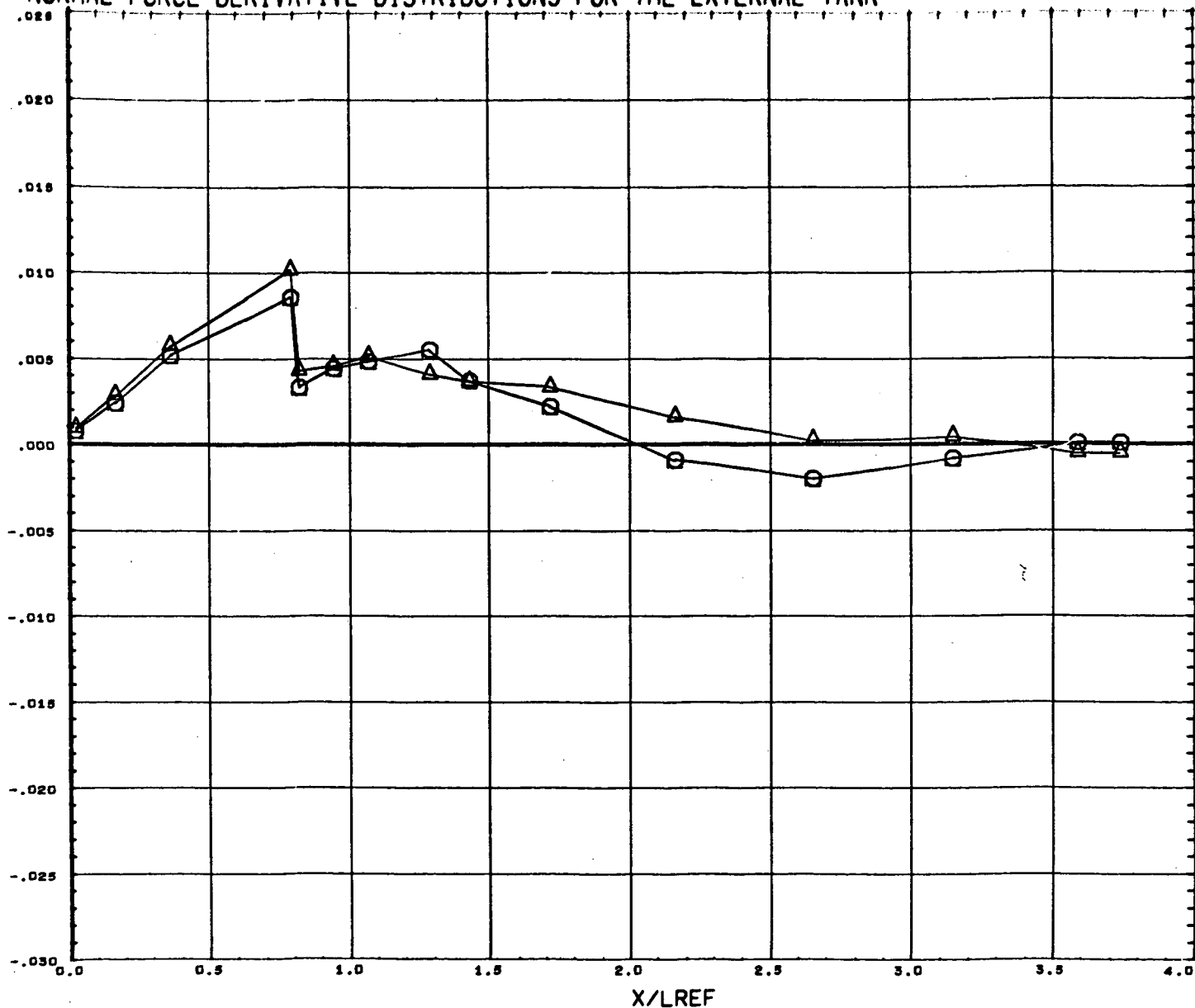


SYMBOL MACH 0.800 BETA 0.000
 Δ 1.200

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2460 INCHES
 SCALE 0.0040 SCALE

DISTRIBUTED NORMAL FORCE COEFFICIENT ALPHA DERIVATIVE, CNDXDA, PER DEG

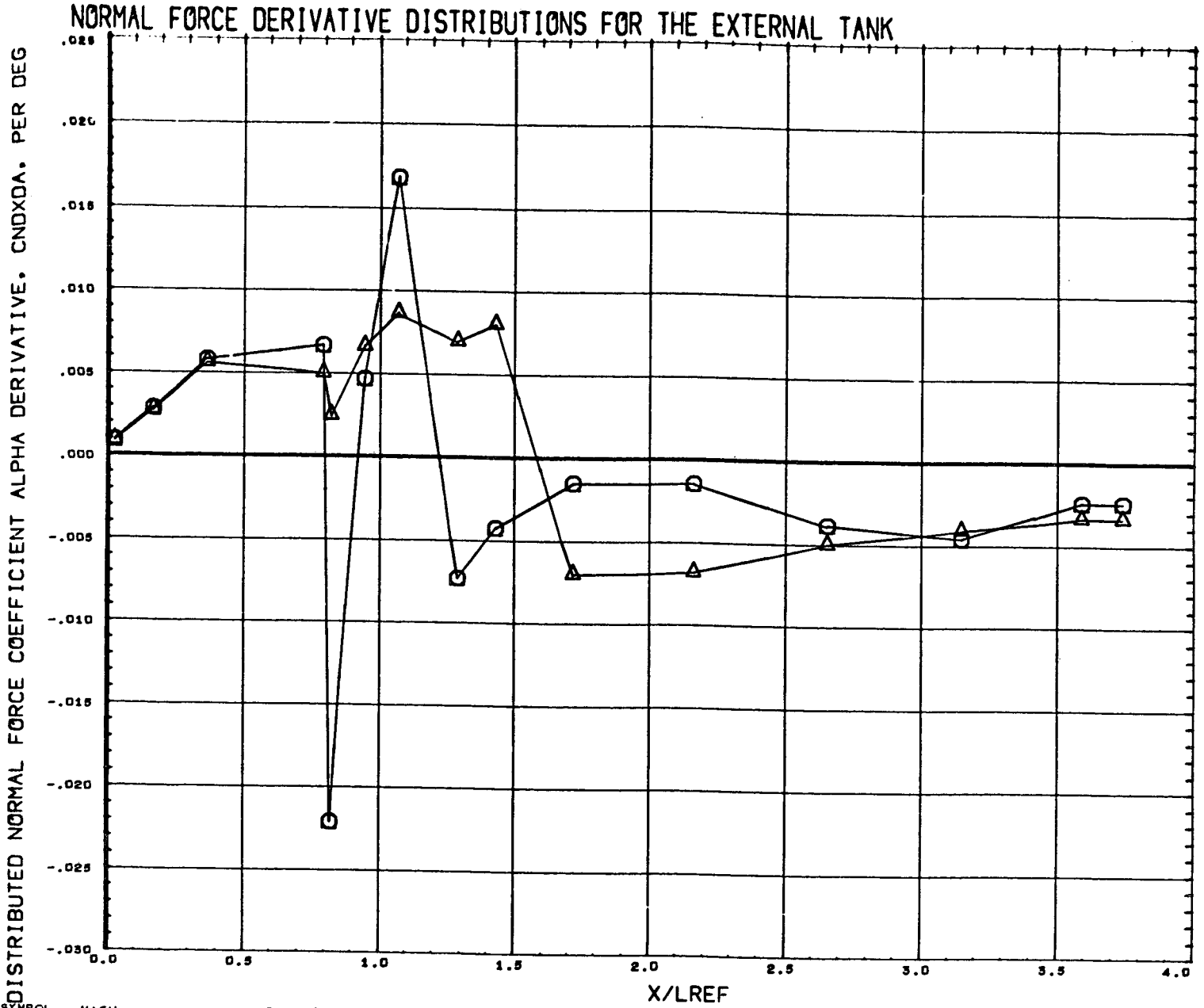
NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.460 0.000
 △ 1.960

REFERENCE INFORMATION

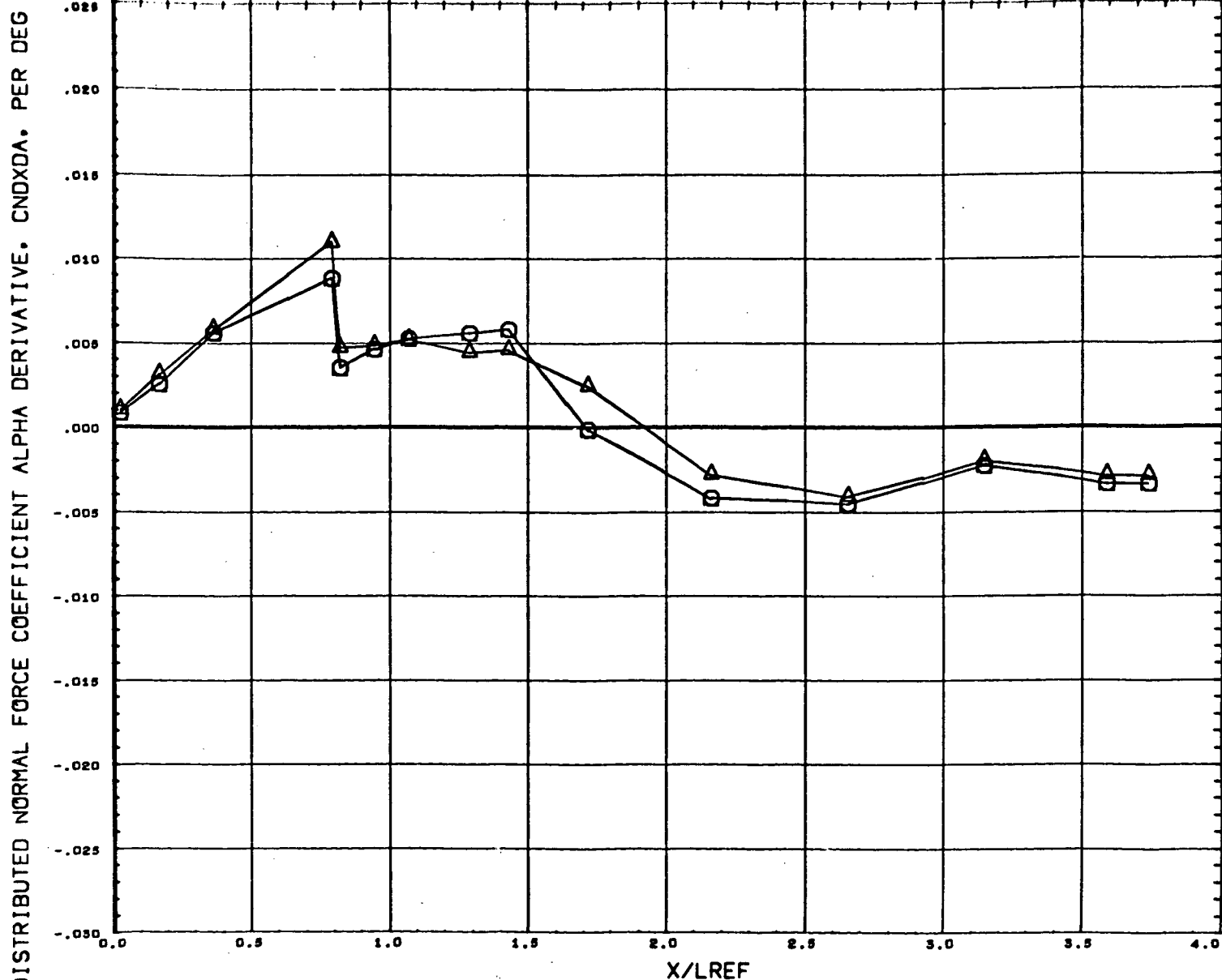
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BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE



SYMBOL Δ MACH 0.800 BETA 0.000 ORBINC - 1.000
 1.200

REFERENCE INFORMATION		
SREF	7.8800	SQ. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK



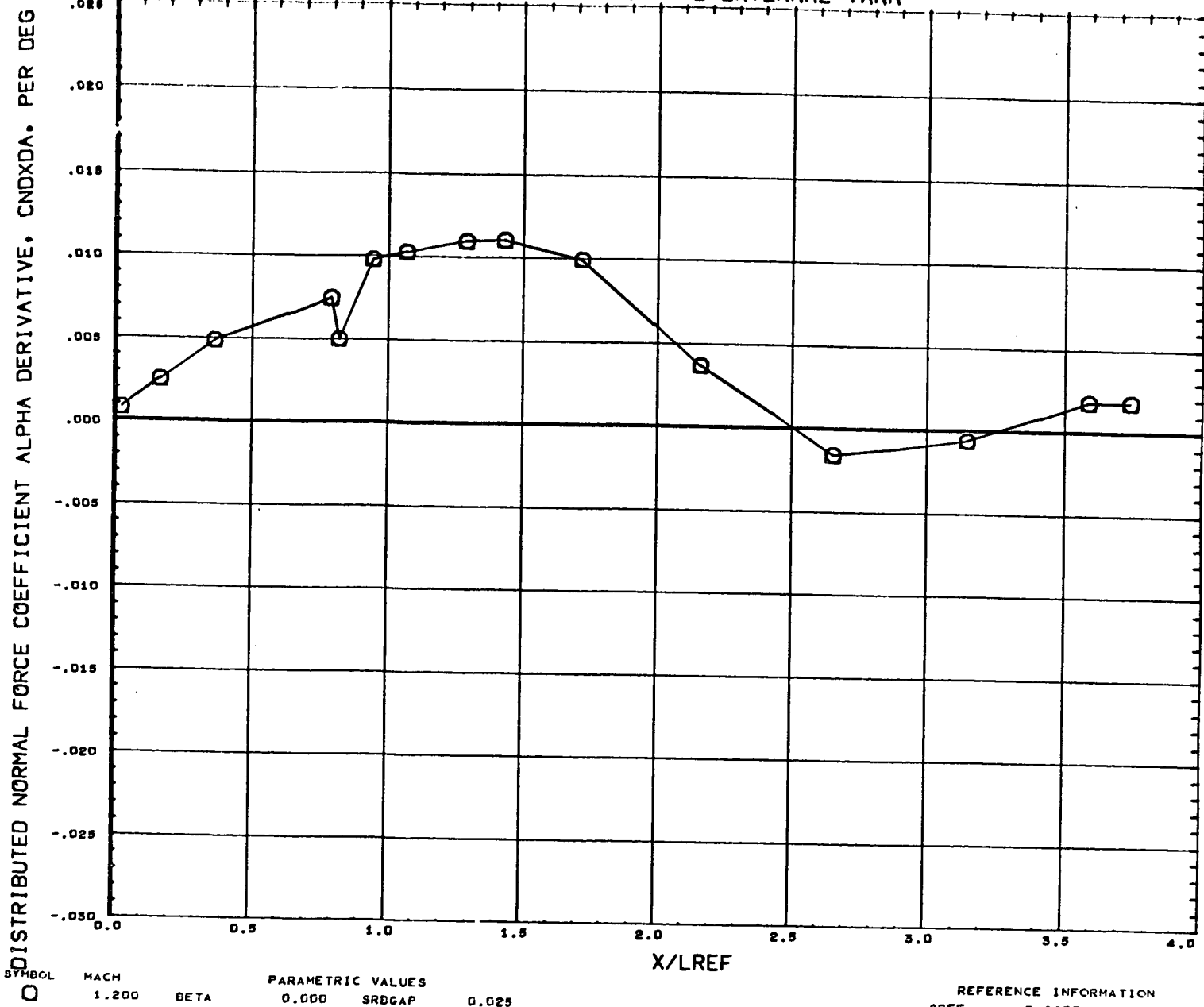
SYMBOL MACH
 1.460 BETA
 1.960

PARAMETRIC VALUES
 0.000 ORBINC - 1.500

REFERENCE INFORMATION

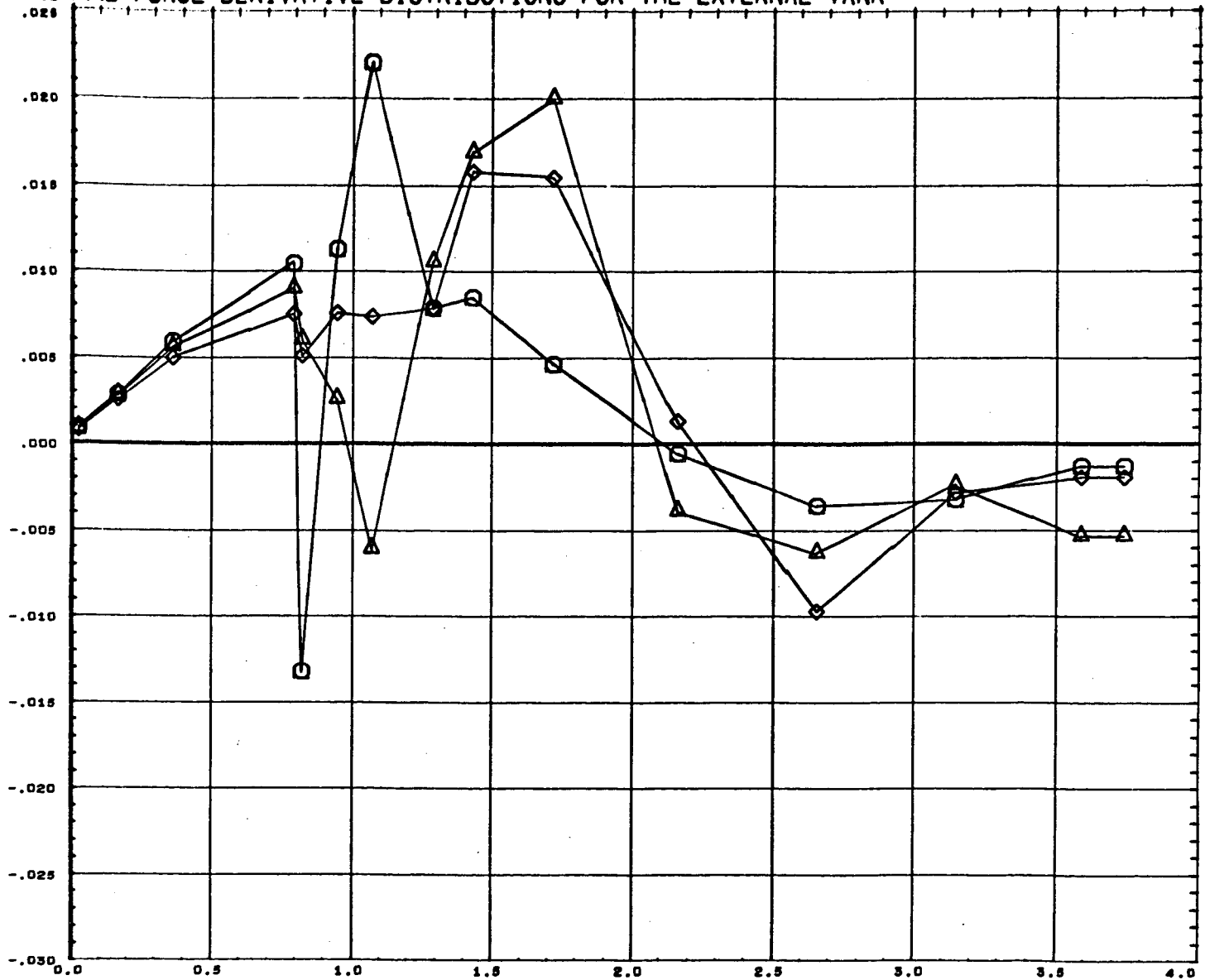
SREF	7.8800	SQ. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK



DISTRIBUTED NORMAL FORCE COEFFICIENT ALPHA DERIVATIVE, CNDOXA, PER DEG

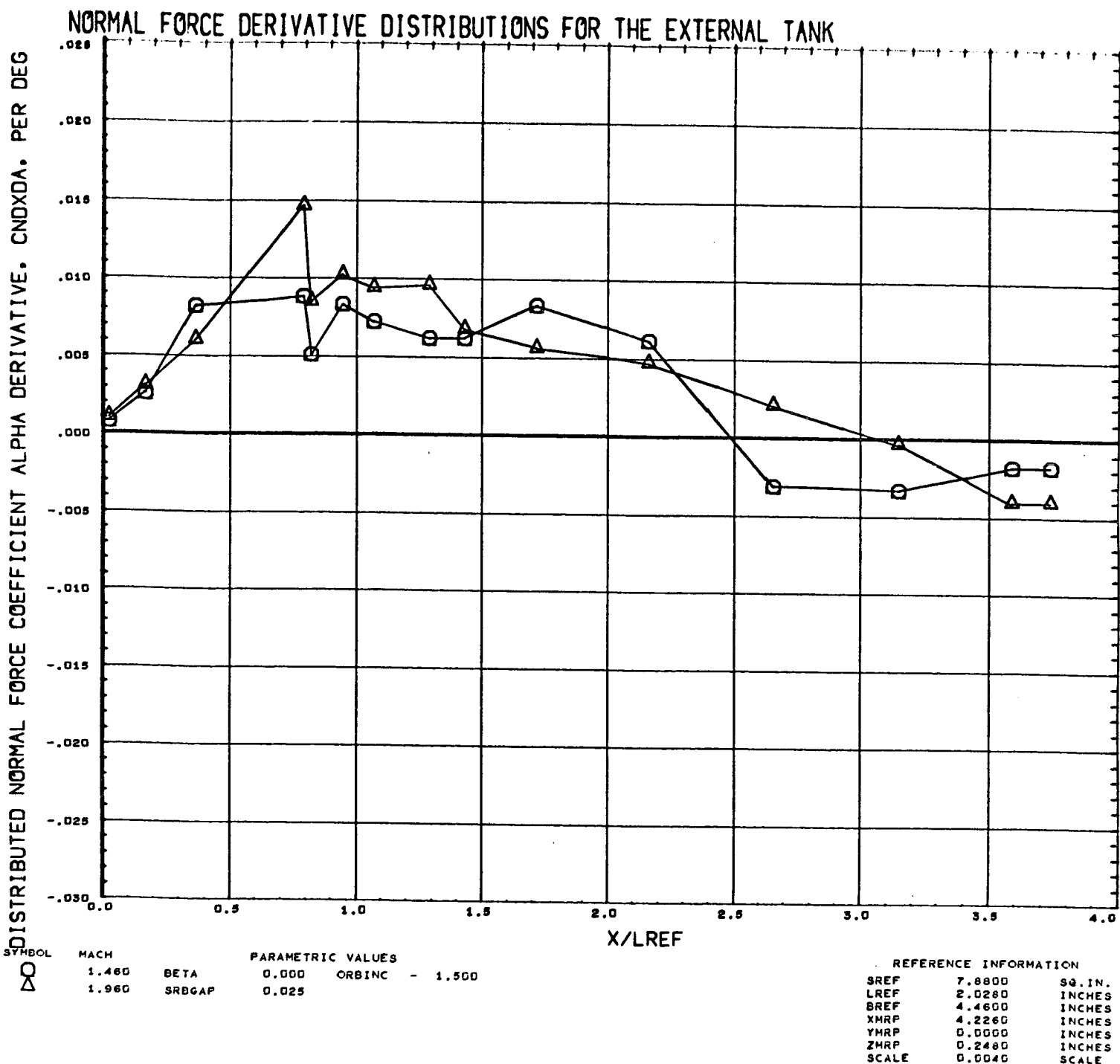
NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL MACH BETA PARAMETRIC VALUES
 ◇ 0.800 0.000 ORBINC - 1.500
 0.950 SRBGAP 0.025
 1.200

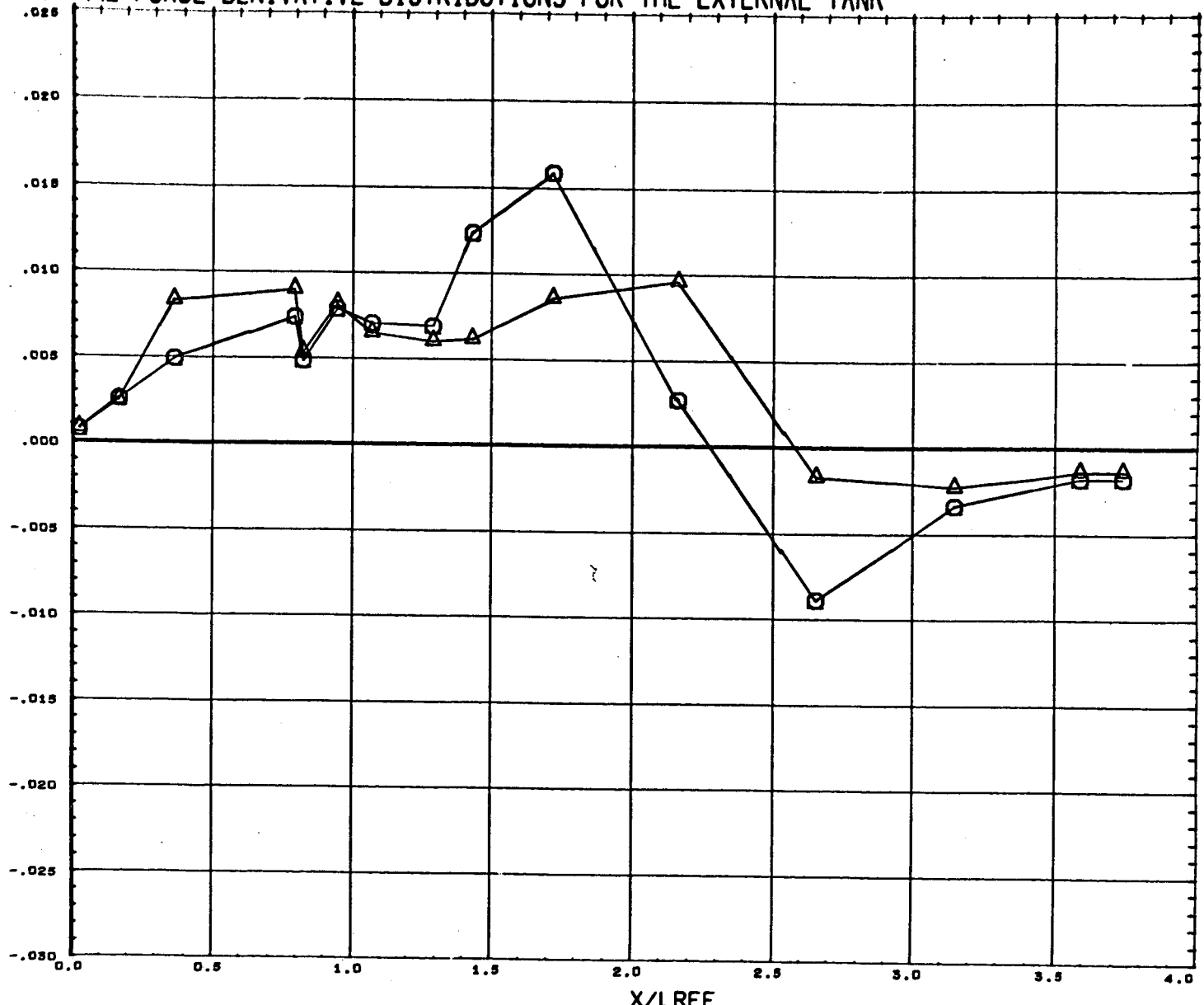
REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

E



DISTRIBUTED NORMAL FORCE COEFFICIENT ALPHA DERIVATIVE, CN0XDA, PER DEG

NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK

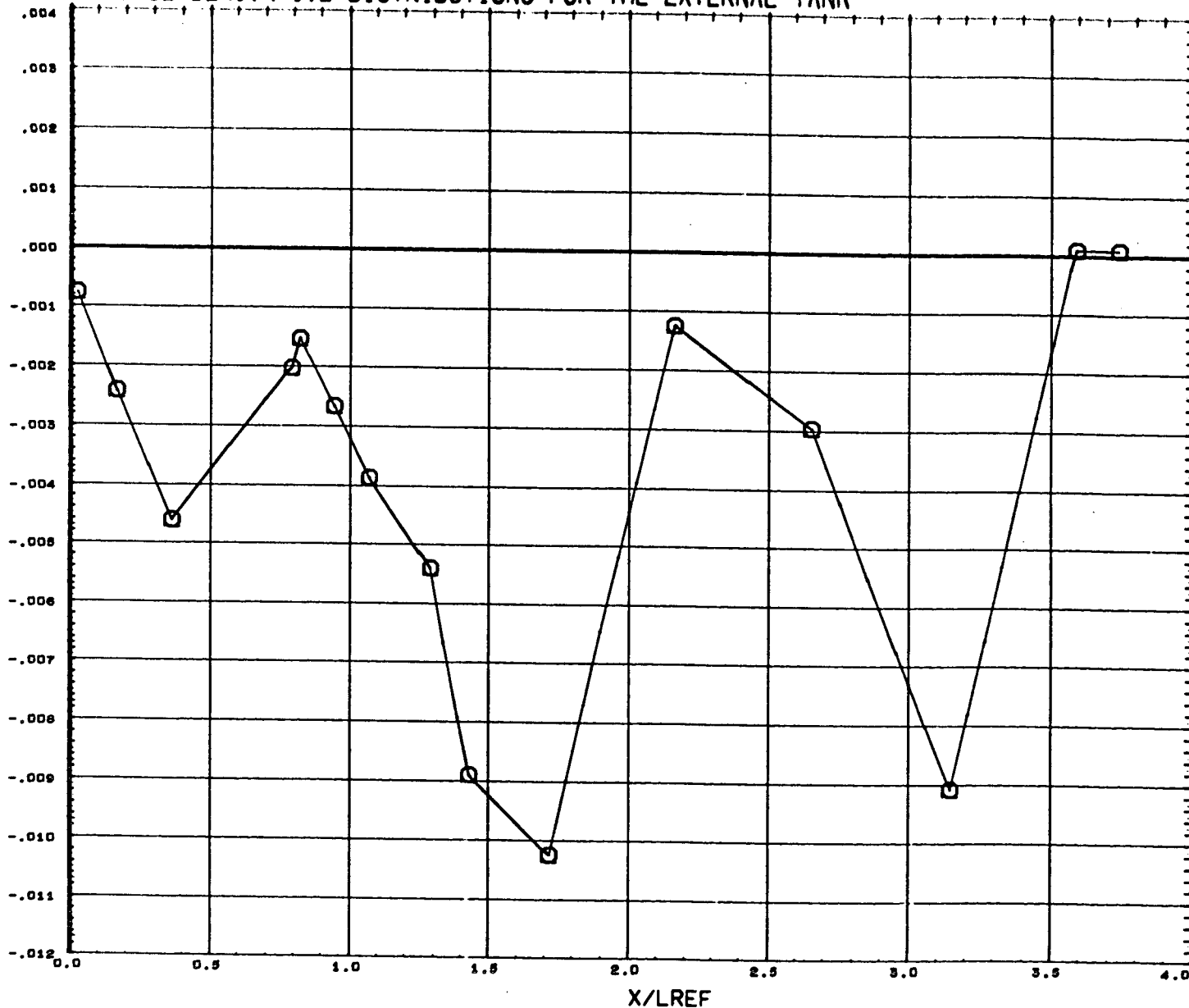


SYMBOL Δ MACH 1.200 BETA 0.000 ORBINC 0.000
 1.460 SRBGAP 0.025

REFERENCE INFORMATION		
SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK

DISTRIBUTED SIDE FORCE COEFFICIENT BETA DERIVATIVE, CYDXDB, PER DEG.



SYMBOL \square MACH 1.200
 ALPHA 0.000 ORBINC - 1.500
 SRBCAP 0.025

REFERENCE INFORMATION

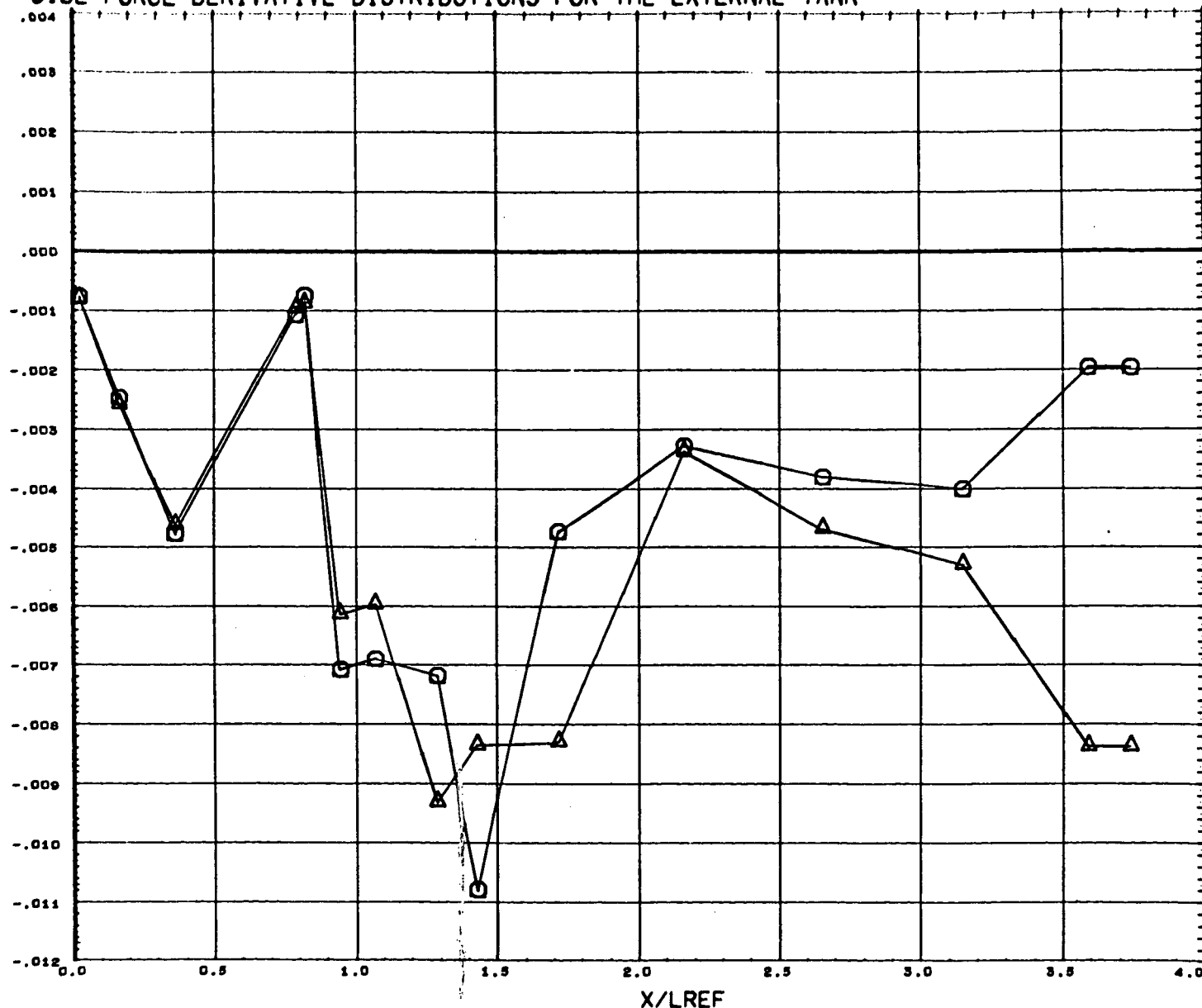
SREF	7.8800	SQ. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRF	4.2260	INCHES
YMRF	0.0000	INCHES
ZMRF	0.2460	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DERIVATIVE DISTRIBUTIONS FOR THE EXTERNAL TANK

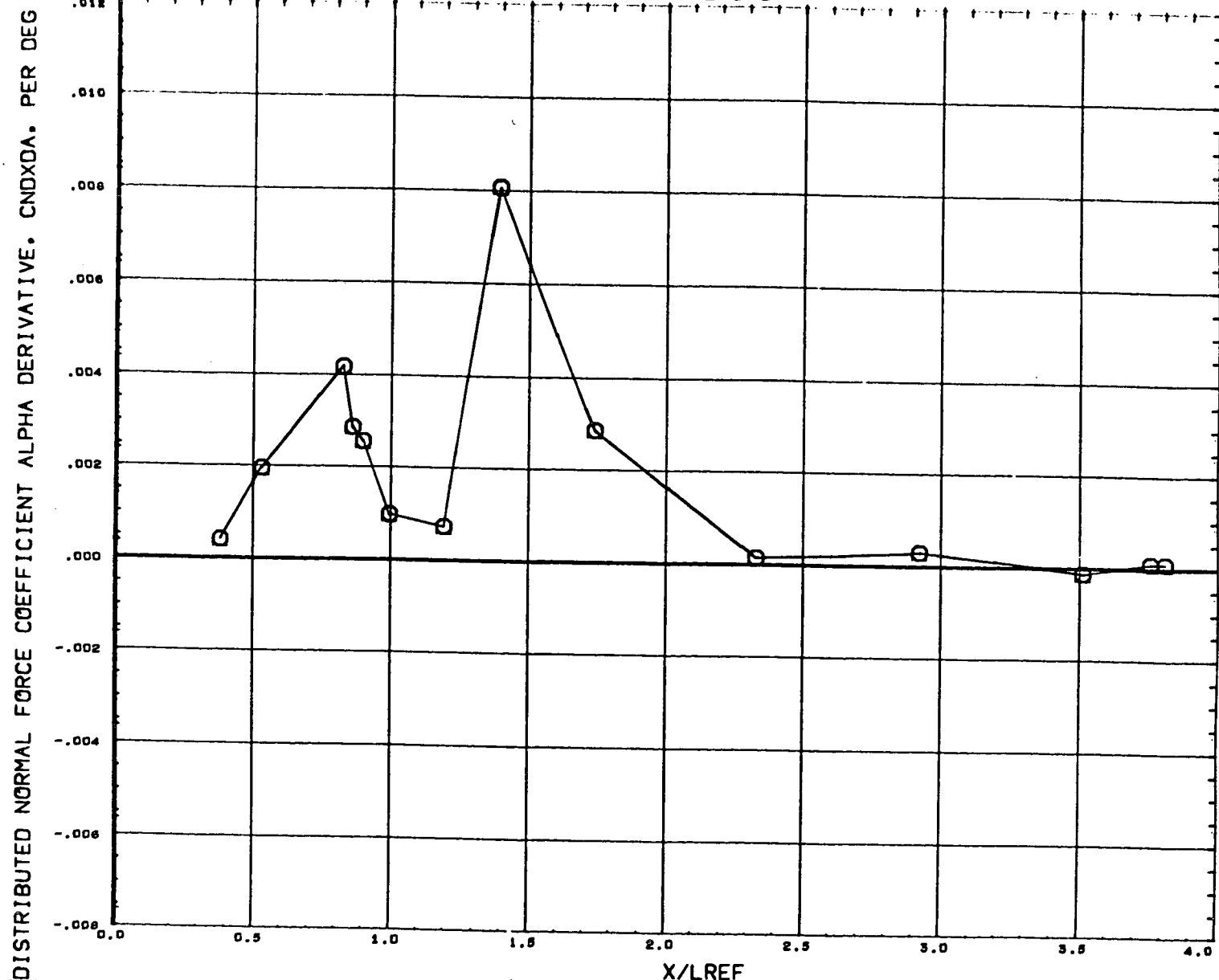
SYMBOL MACH ALPHA PARAMETRIC VALUES

0.950 ALPHA 6.000 ORBINC - 1.500
1.200 SRDGAP 0.025

REFERENCE INFORMATION
SREF 7.8600 99. IN.
LREF 2.0280 INCHES
BREF 4.4600 INCHES
XMRP 4.2260 INCHES
YMRP 0.0000 INCHES
ZMRP 0.2480 INCHES
SCALE 0.0040 SCALE



NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE SRB

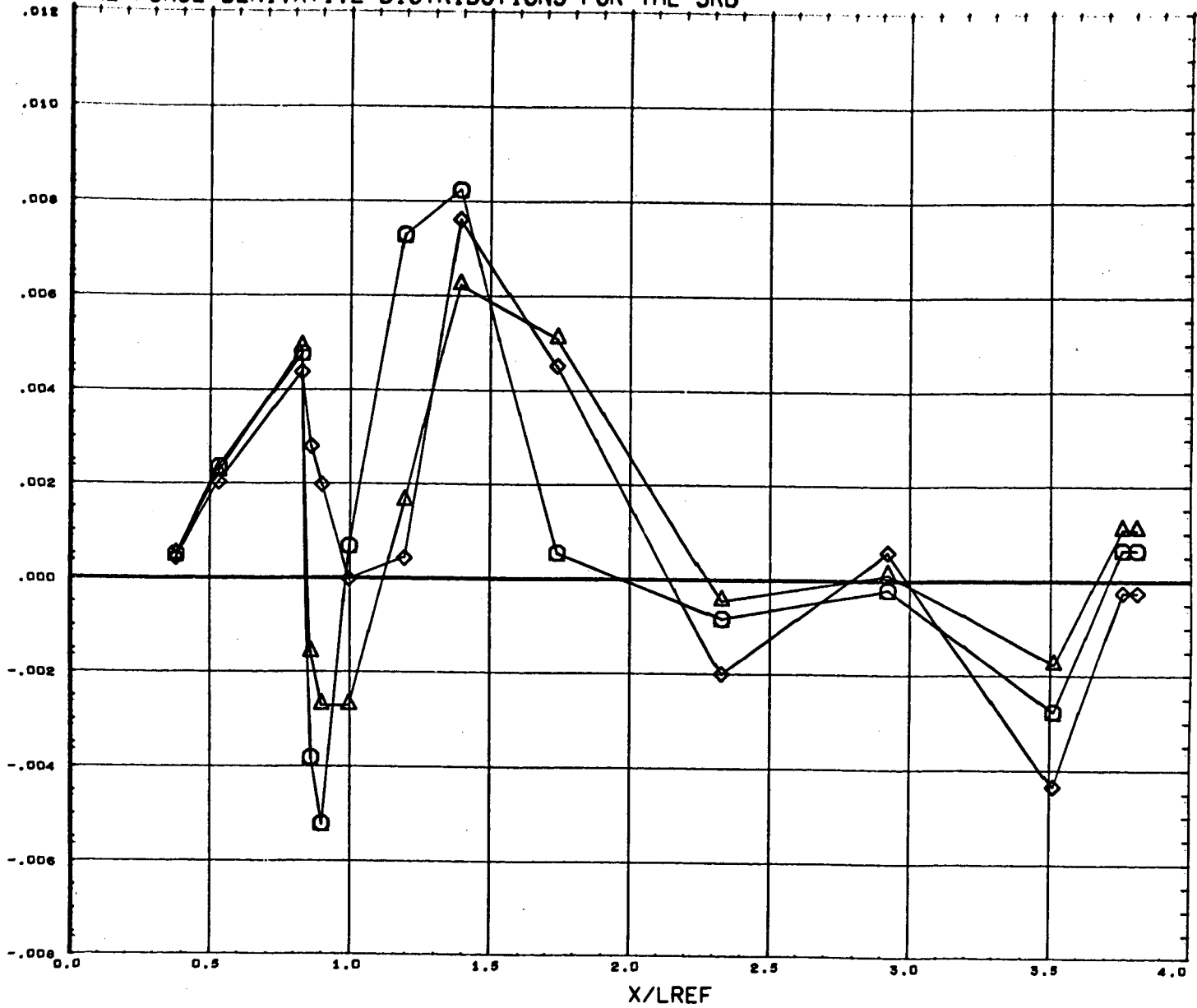


SYMBOL MACH 1.200 BETA 0.000 SRBGAP 0.025

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

DISTRIBUTED NORMAL FORCE COEFFICIENT ALPHA DERIVATIVE, CN0XDA, PER DEG

NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE SRB



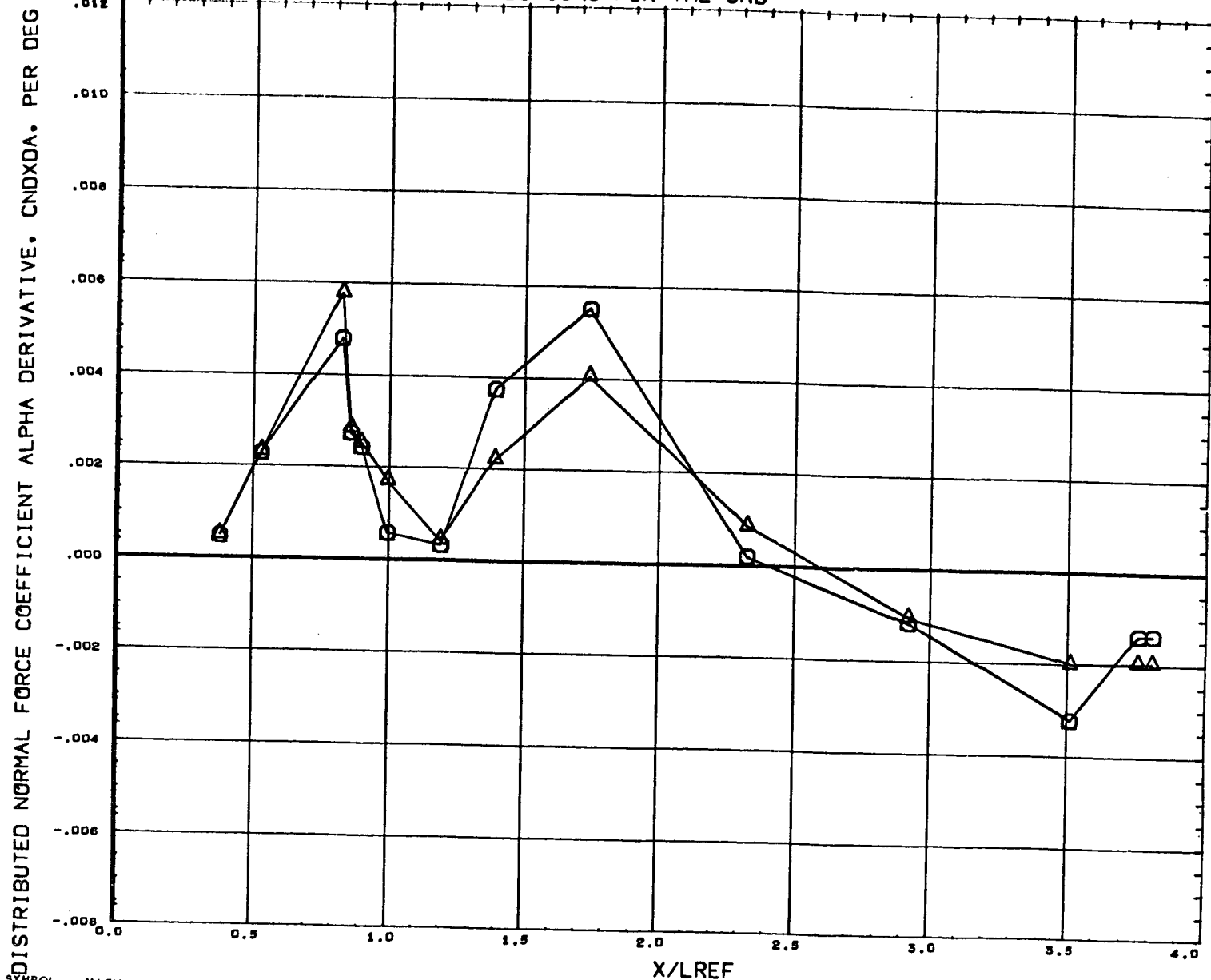
SYMBOL MACH
 ◇◇ 0.800
 ◇ 0.950
 ◇ 1.200

PARAMETRIC VALUES
 BETA 0.000
 SRBGAP 0.025
 ORBINC - 1.500

REFERENCE INFORMATION

SREF	7.8600	SQ. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE SRB

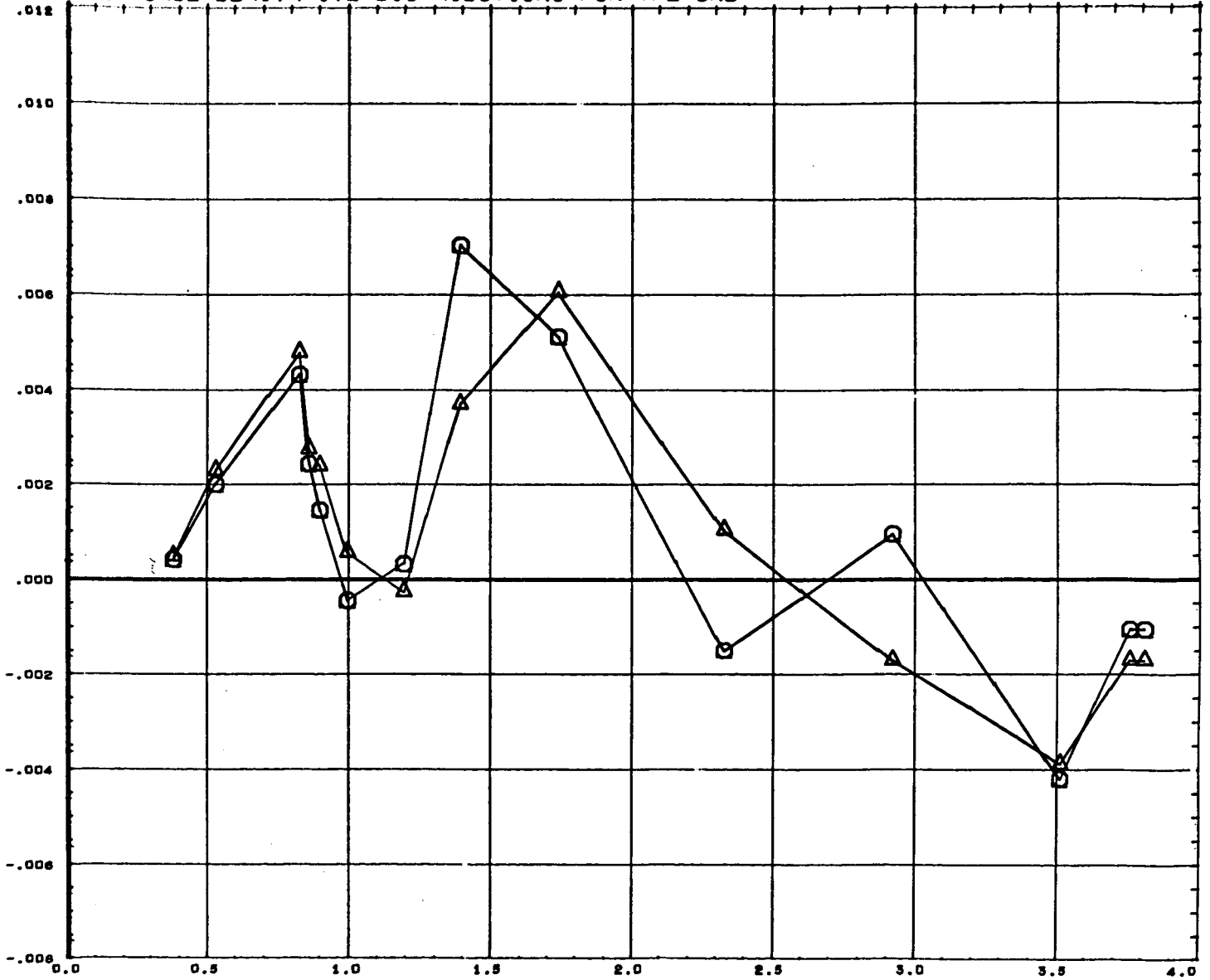


SYMBOL MACH 1.460 BETA 0.000 ORBINC - 1.500
 1.960 SRBGAP 0.025

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

DISTRIBUTED NORMAL FORCE COEFFICIENT ALPHA DERIVATIVE, CNDXDA, PER DEG

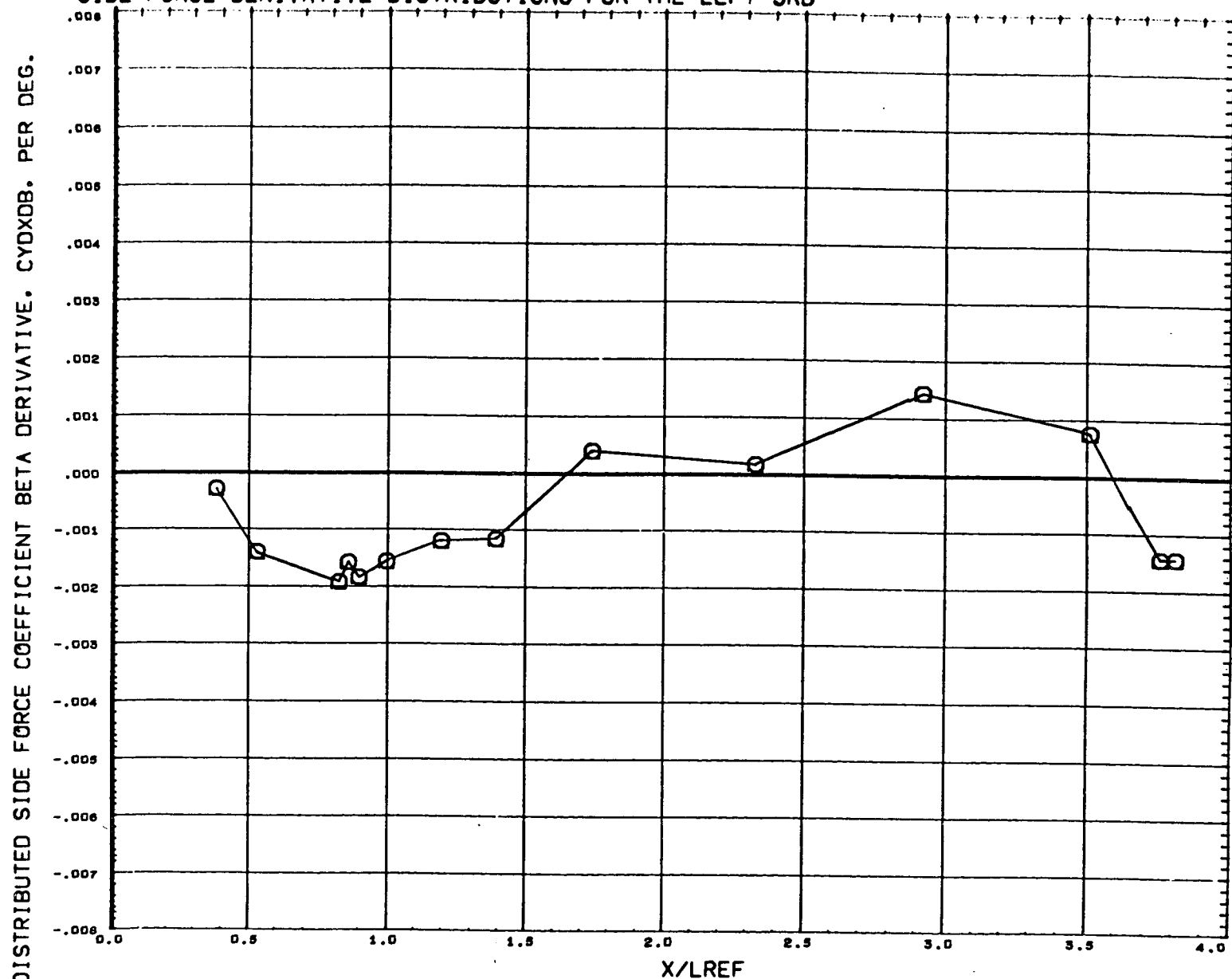
NORMAL FORCE DERIVATIVE DISTRIBUTIONS FOR THE SRB



SYMBOL	MACH	PARAMETRIC VALUES			
	1.200	BETA	0.000	ORBINC	0.000
	1.460	SRBGAP	0.025		

REFERENCE INFORMATION		
SREF	7.8800	99. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DERIVATIVE DISTRIBUTIONS FOR THE LEFT SRB

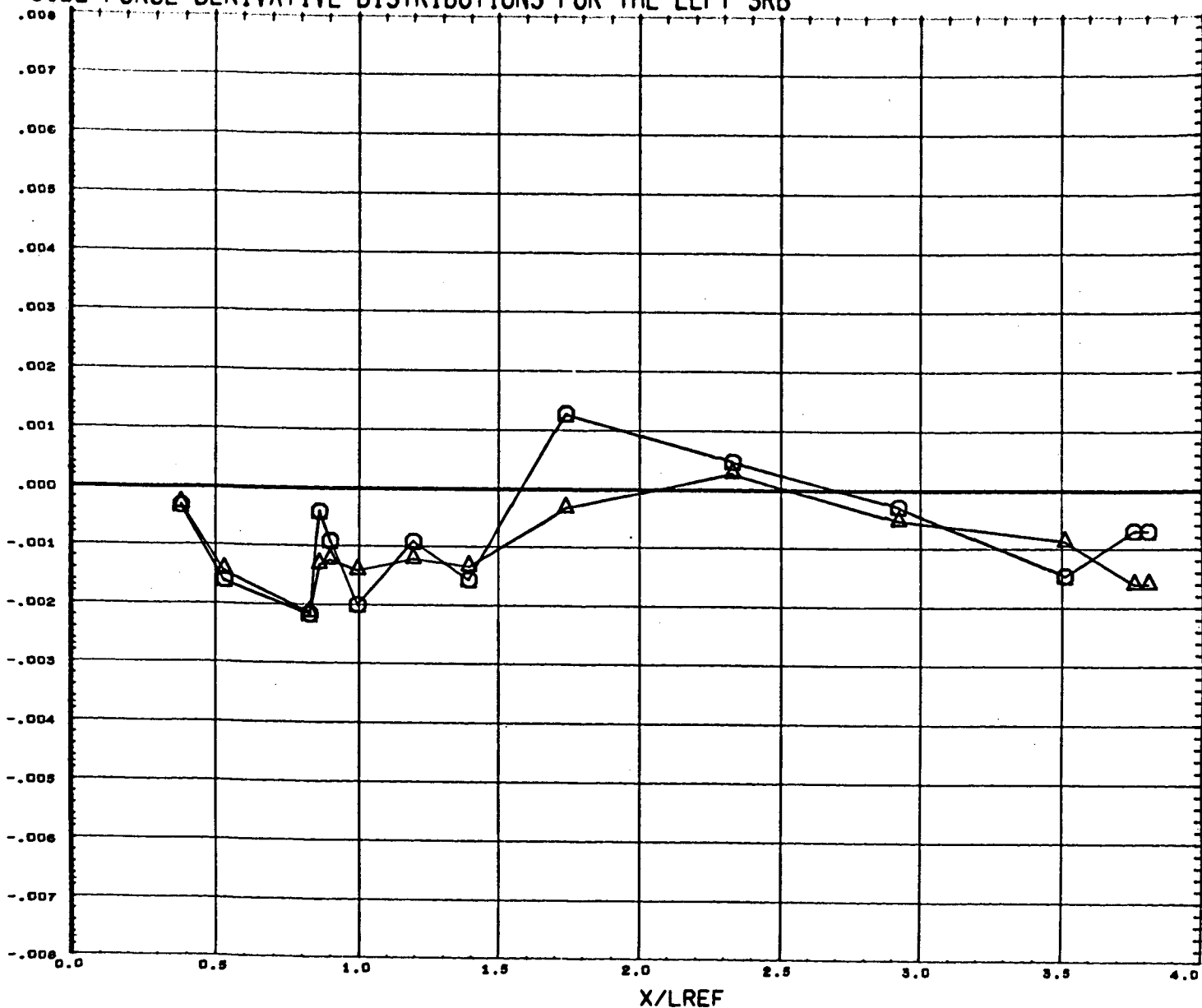


SYMBOL Q MACH 1.200 ALPHA 0.000 ORBINC - 1.500
SRBGAP 0.025

REFERENCE INFORMATION
SREF 7.8800 SQ. IN.
LREF 2.0280 INCHES
BREF 4.4600 INCHES
XMRP 4.2260 INCHES
YMRP 0.0000 INCHES
ZMRP 0.2480 INCHES
SCALE 0.0040 SCALE

SIDE FORCE DERIVATIVE DISTRIBUTIONS FOR THE LEFT SRB

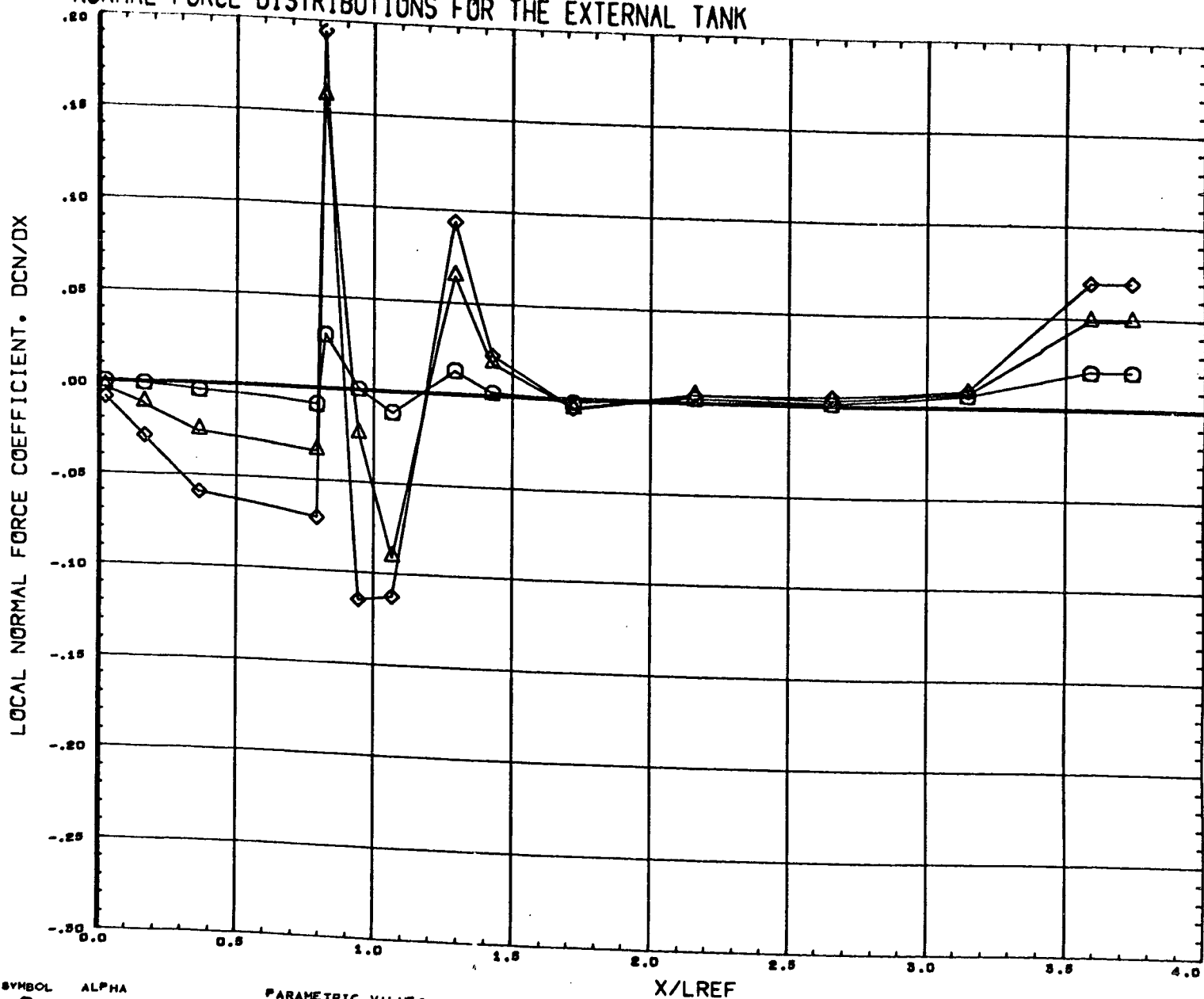
DISTRIBUTED SIDE FORCE COEFFICIENT BETA DERIVATIVE, CYDXOB, PER DEG.



SYMBOL MACH 0.950 ALPHA 6.000 ORBINC - 1.500
 Δ 1.200 SRDGAP 0.025

REFERENCE INFORMATION
 SREF 7.9800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



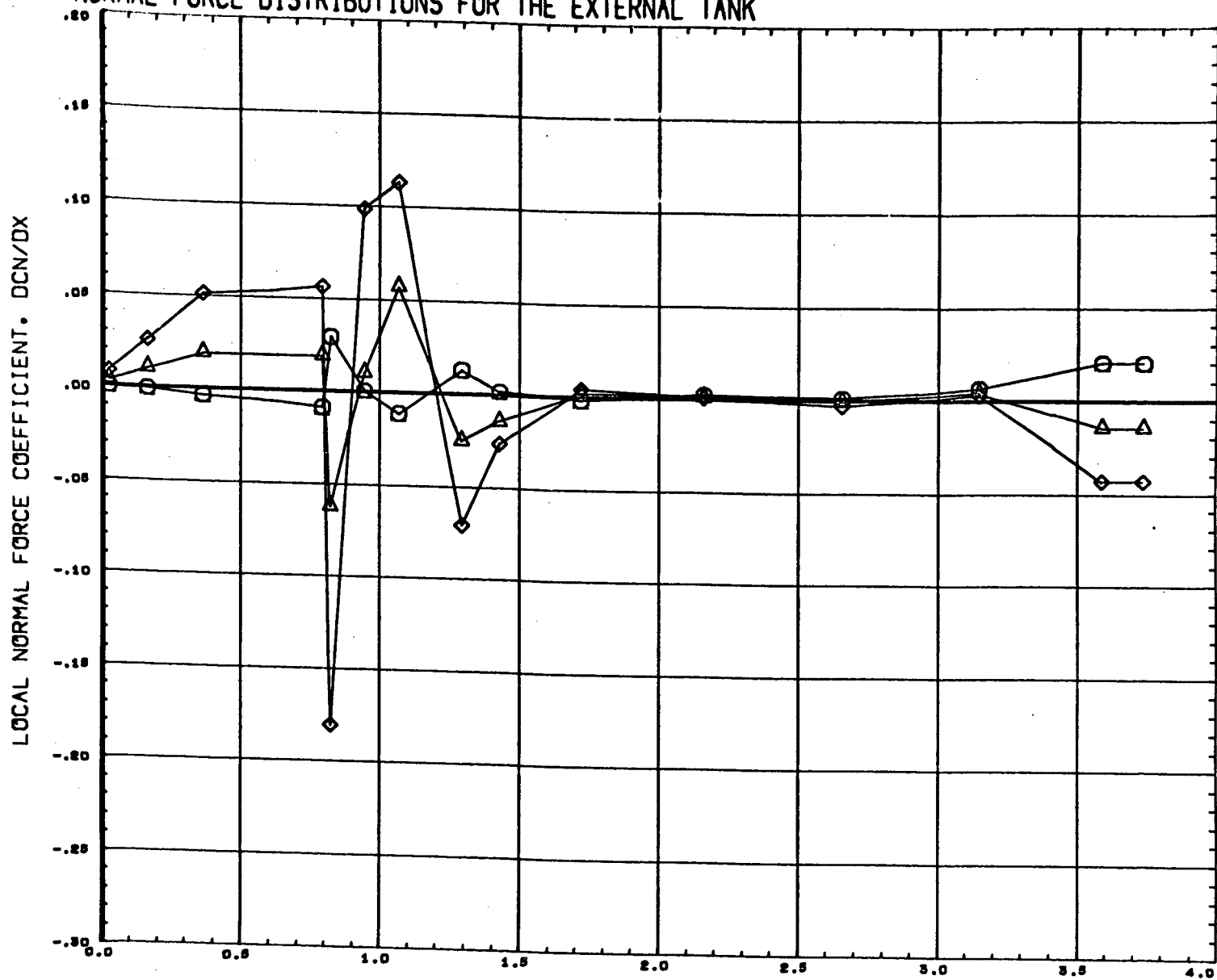
SYMBOL ALPHA BETA PARAMETRIC VALUES
 O 0.000
 Δ - 4.000
 ◇ - 10.000

MACH .80

MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION
 SREF 7.8800 39. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



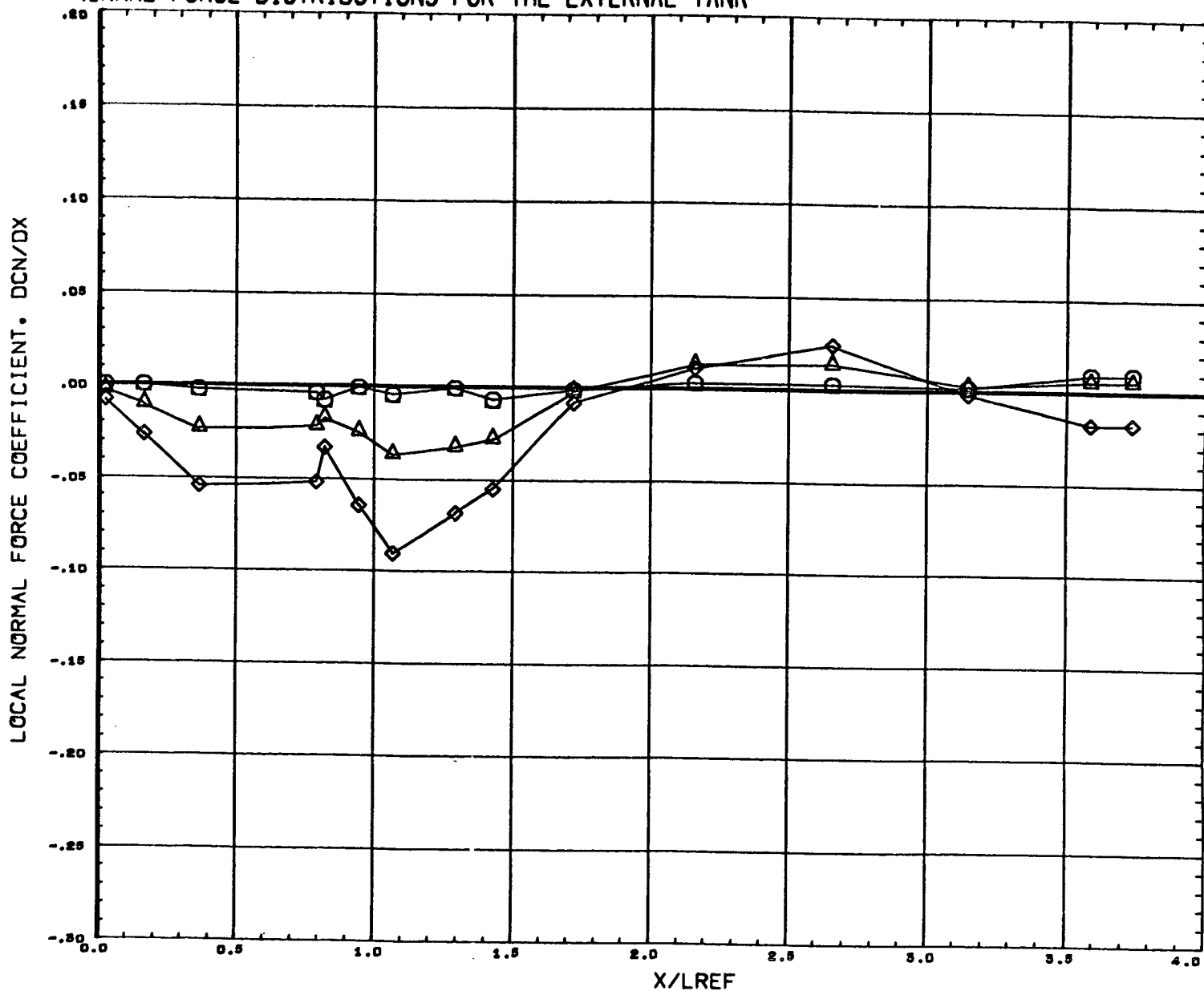
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000
 △ 4.000 0.000
 ◇ 10.000 0.000

MACH .80

MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION
 SREF 7.8800 59.1N.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2486 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



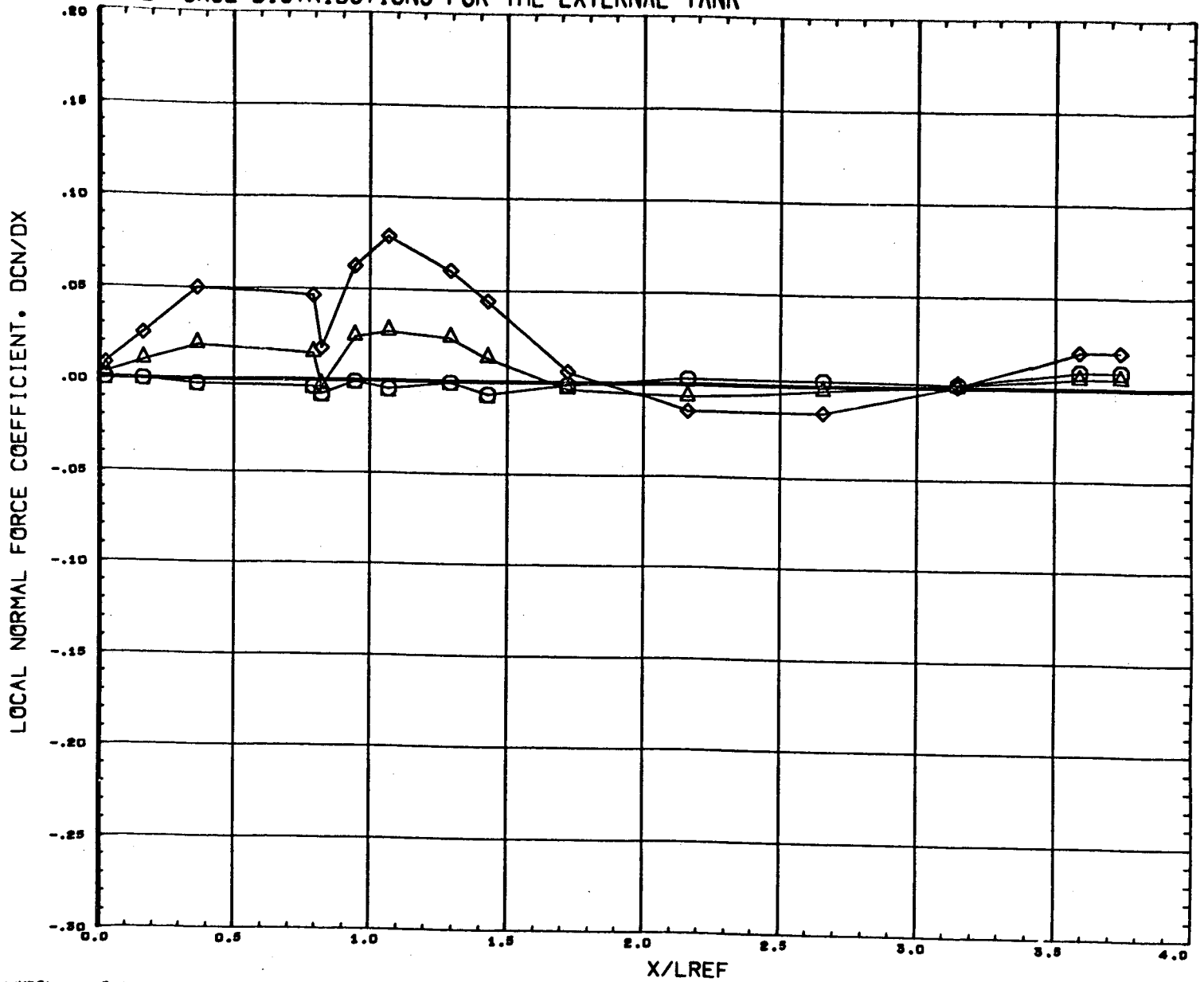
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000
 △ - 4.000
 ◇ - 10.000

MACH 1.20

MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION
 SREF 7.8800 80. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000
 △ 4.000
 ◇ 10.000

MACH 1.20

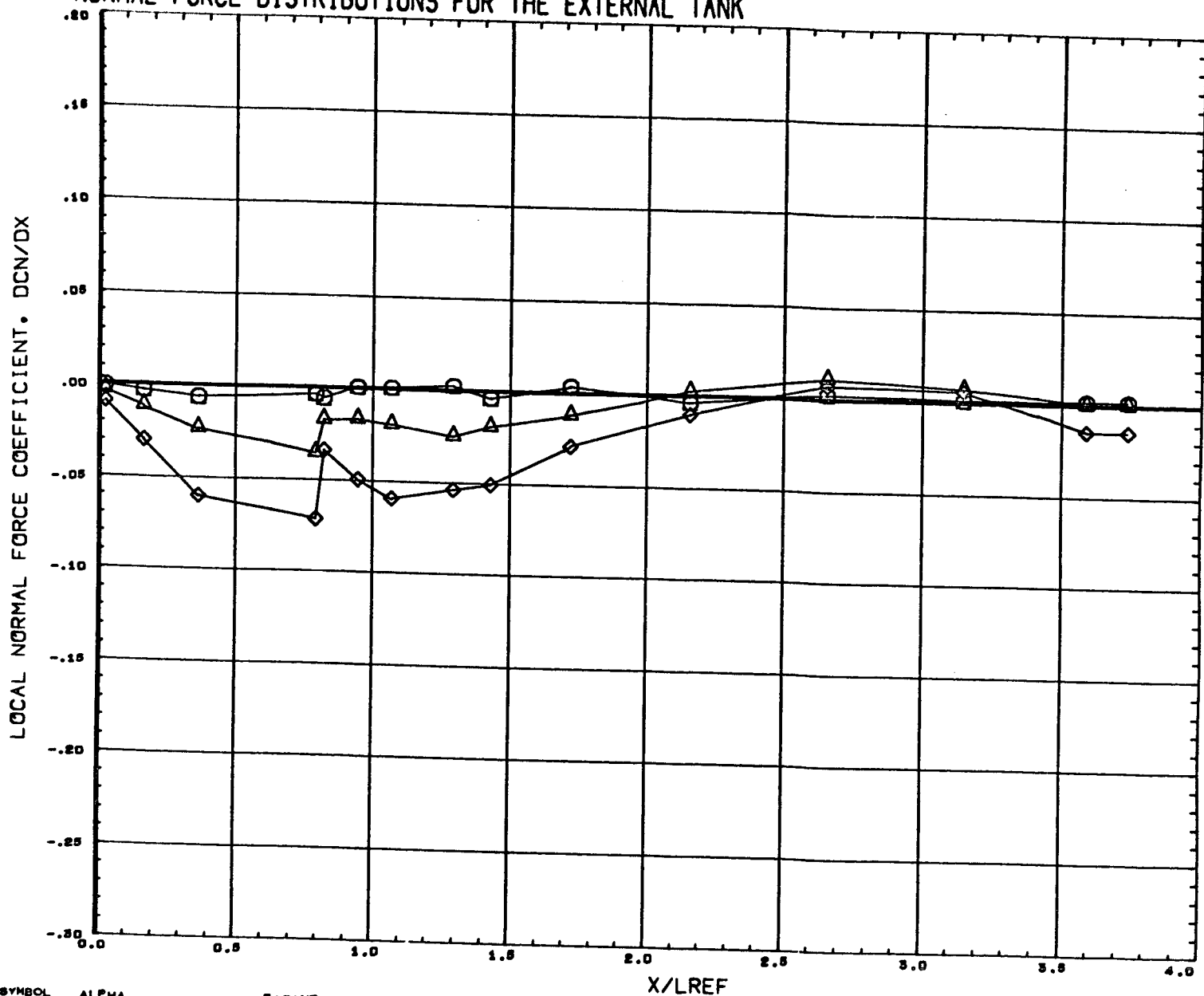
MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION
 SREF 7.8800 80. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XHRP 4.2260 INCHES
 YHRP 0.0000 INCHES
 ZHRP 0.2480 INCHES
 SCALE 0.0040 SCALE

(A70000) 17 FEB 73 PAGE 809

F

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000
 △ - 4.000
 ◇ - 10.000

MACH 1.46

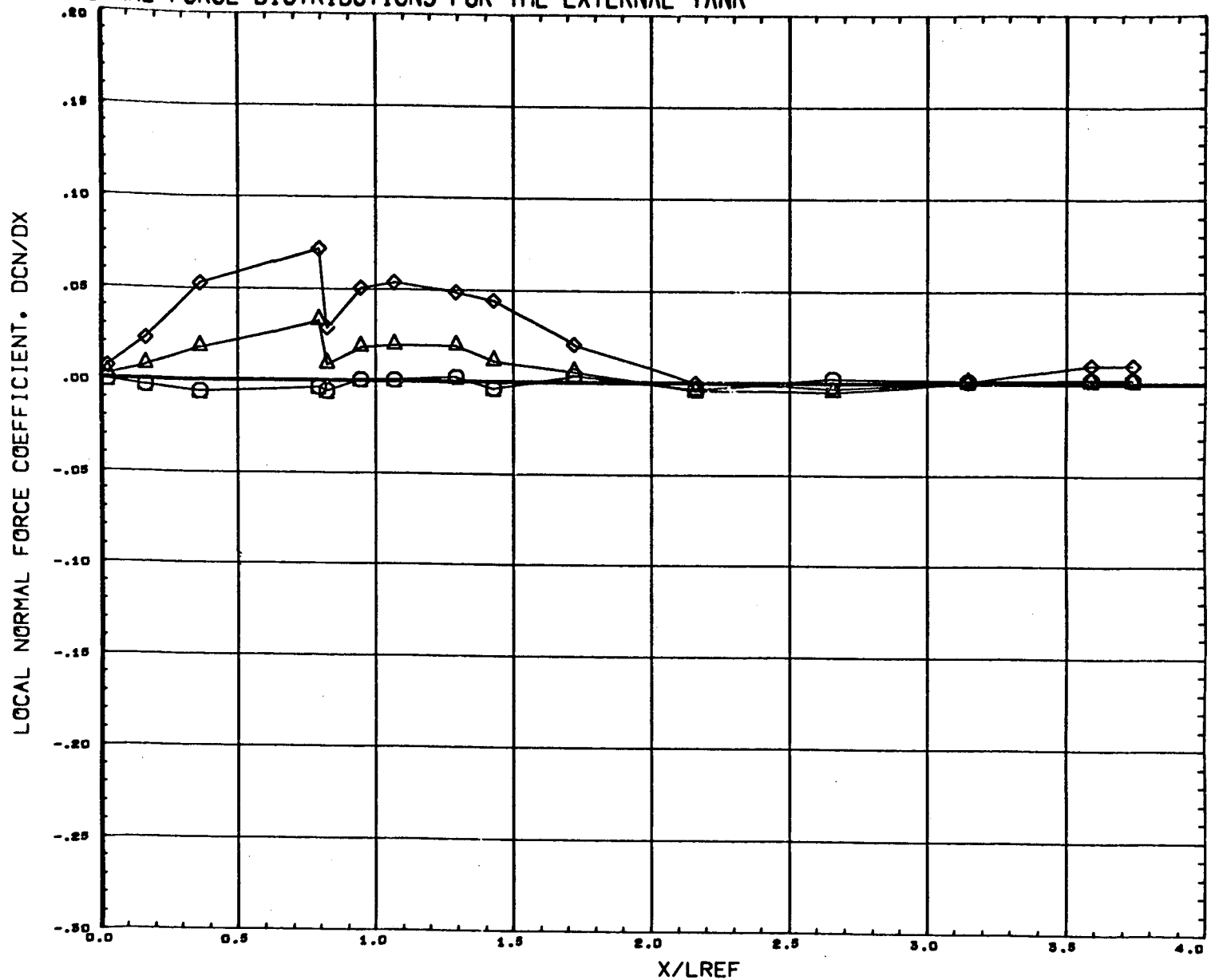
MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION

SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

(A70000) 17 FEB 73 PAGE 810

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000
 △ 4.000
 ◇ 10.000

MACH 1.46

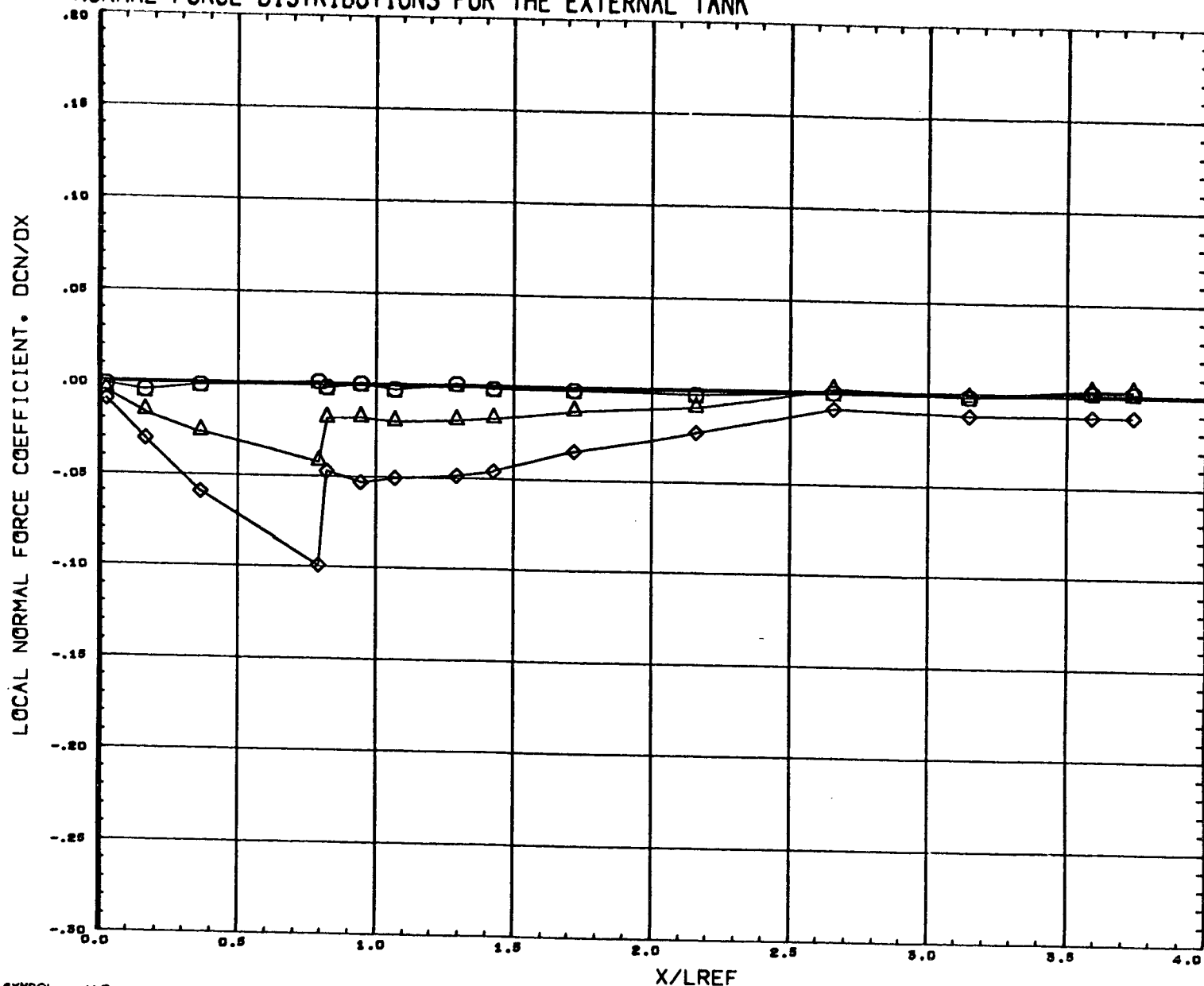
MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION

SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

(A70000) 17 FEB 73 PAGE 811

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



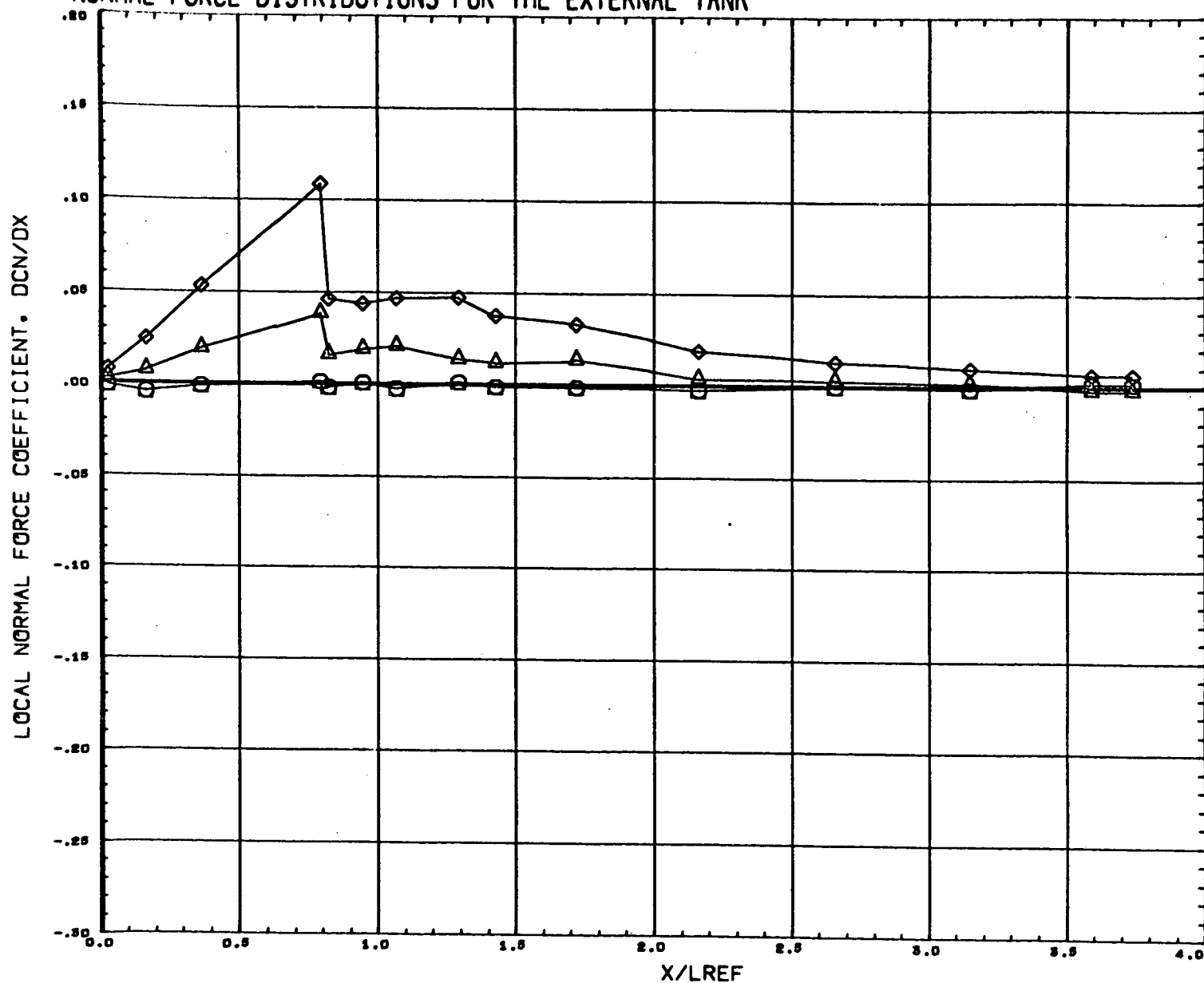
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000
 △ - 4.000
 ◇ - 10.000

MACH 1.96

MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XHRP 4.2260 INCHES
 YHRP 0.0000 INCHES
 ZHRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000		0.000
△	4.000		
◇	10.000		

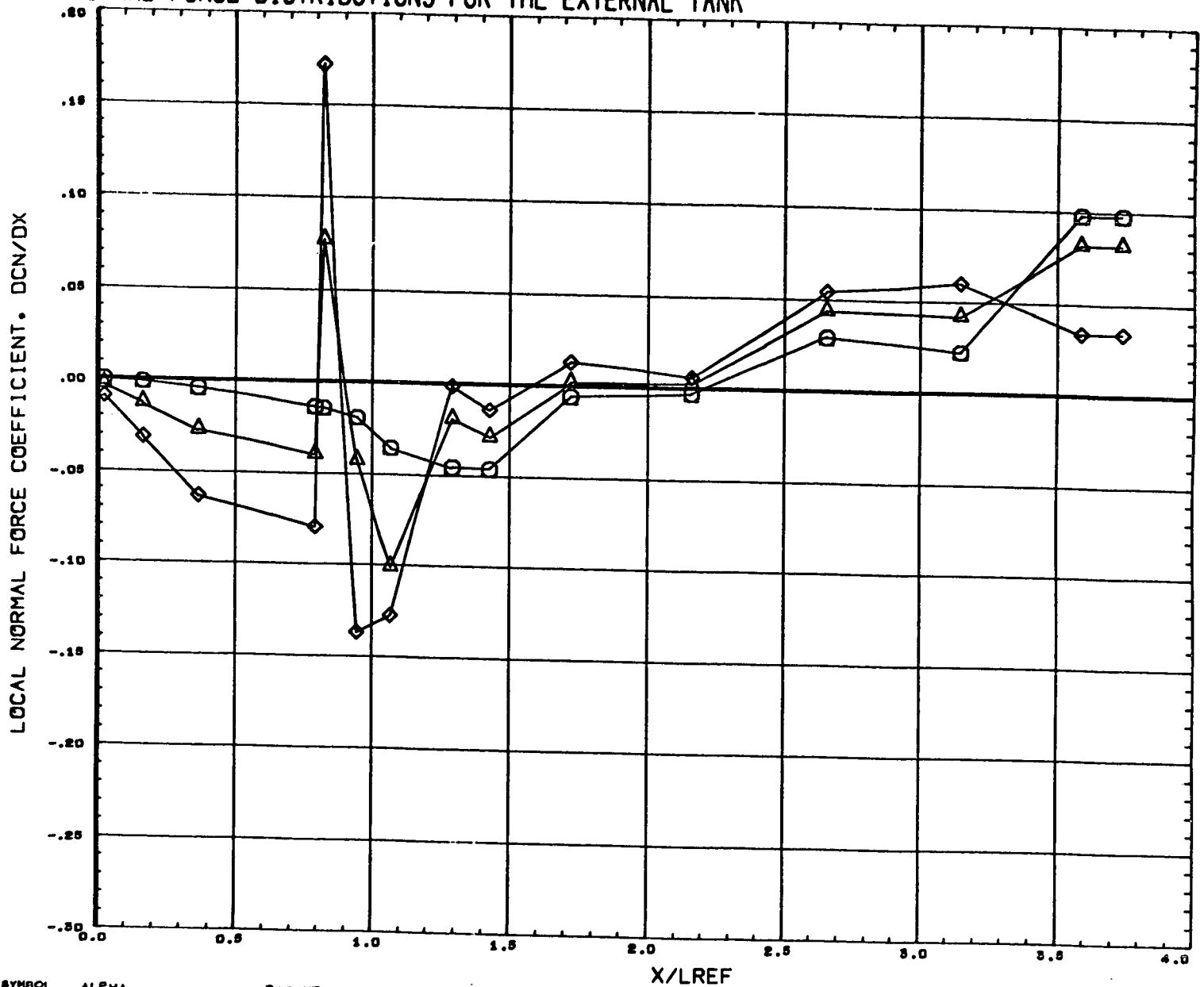
MACH 1.96

MSFC 543-EXTERNAL TANK ALONE, T1

REFERENCE INFORMATION		
SRF	7.9800	80. IN.
LREF	2.0280	INCHES
SRF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

(A70000) 17 FEB 73 PAGE 813

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 BETA 0.000 ORBINC - 1.500
 △ - 4.000
 ◇ - 10.000

MACH .80

REFERENCE INFORMATION
 SREF 7.8800 80. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

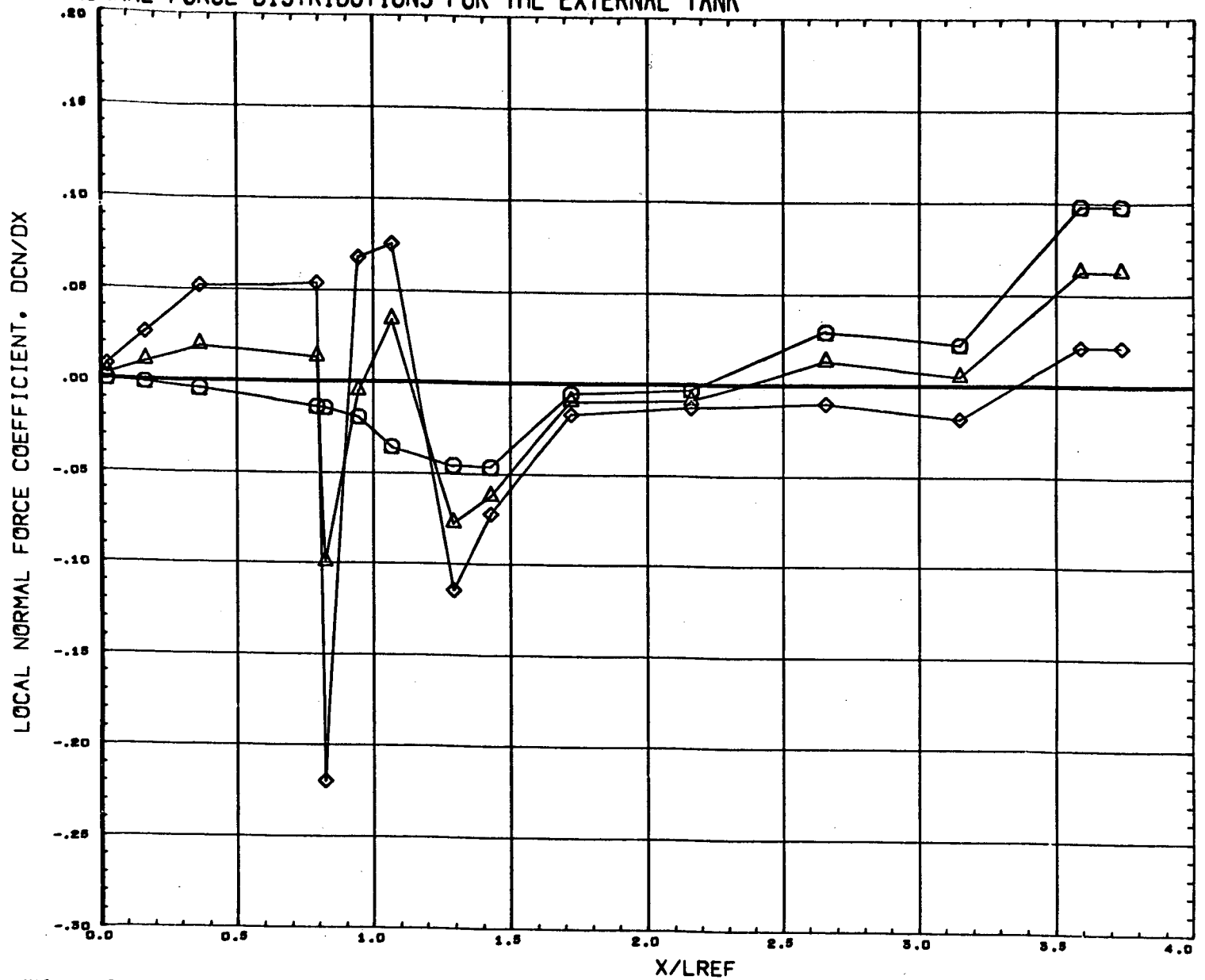
MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(A70600)

17 FEB 73

PAGE 814

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

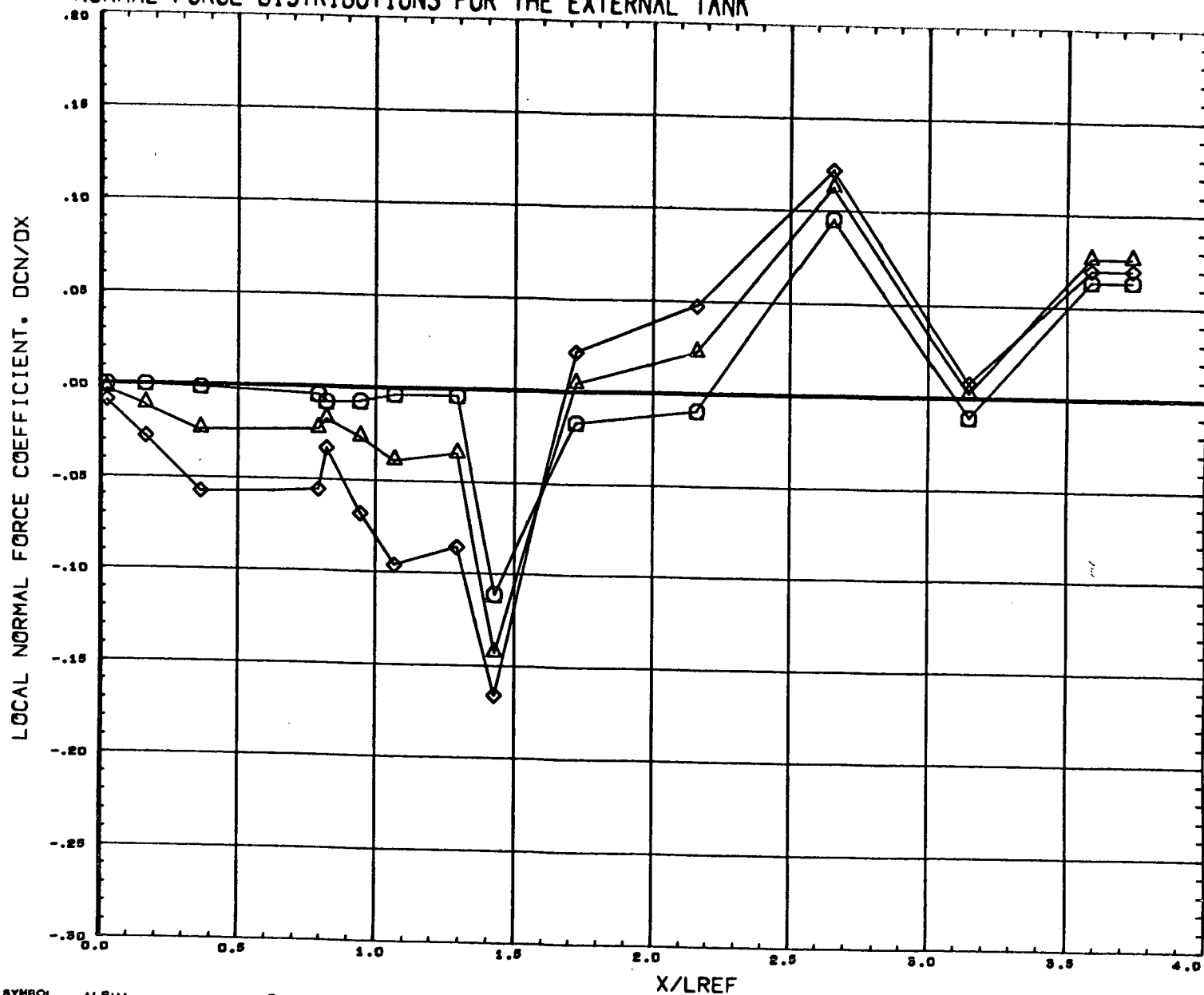


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ 4.000
 ◇ 10.000

MACH .80

REFERENCE INFORMATION
 SREF 7.8800 59. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA
 ○ 0.000
 △ - 4.000
 ◇ - 10.000

BETA 0.000

PARAMETRIC VALUES
 ORBINC - 1.500

REFERENCE INFORMATION

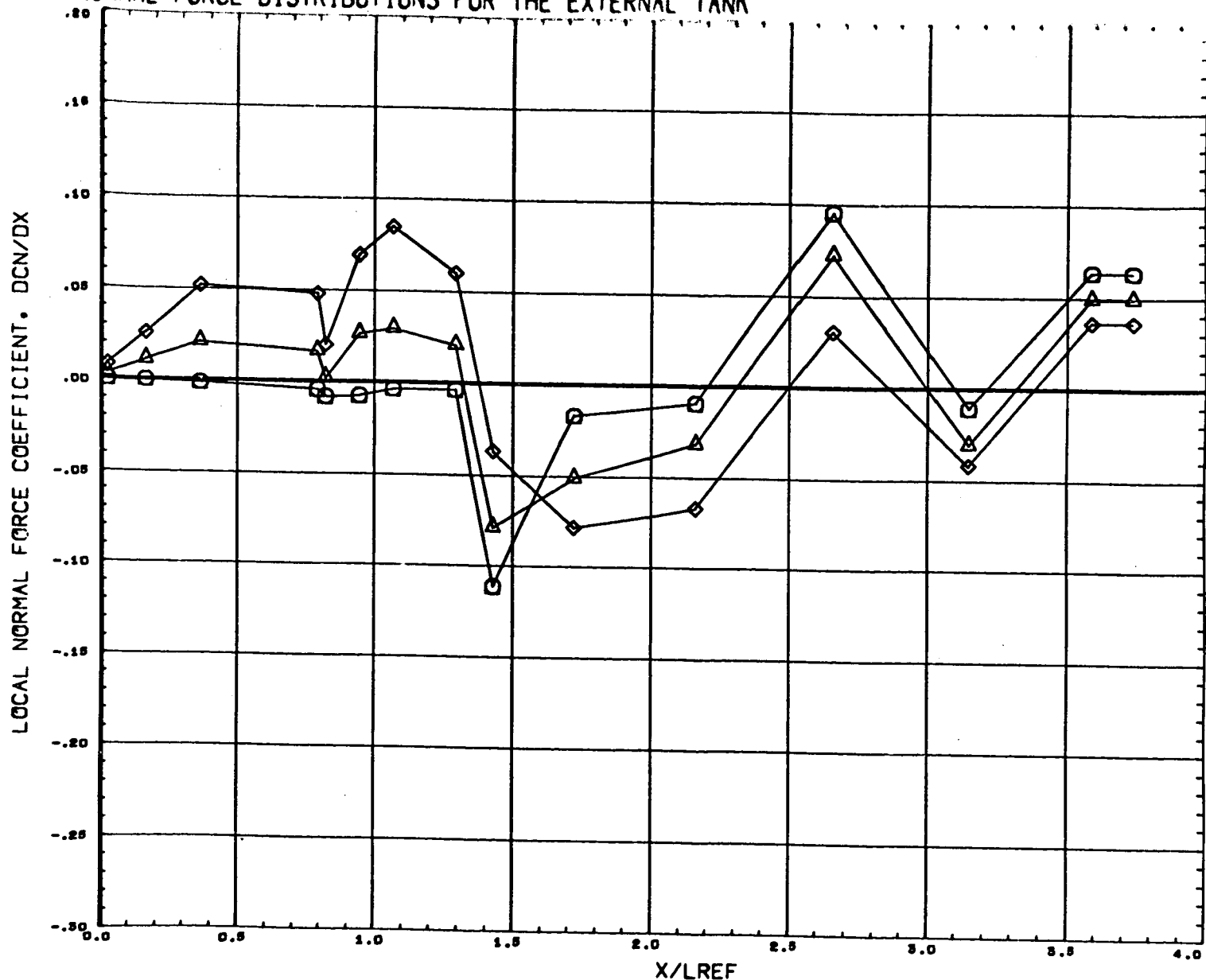
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(A70600) 17 FEB 73 PAGE 816

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ 4.000
 ◇ 10.000

MACH 1.20

REFERENCE INFORMATION
 SREF 7.6800 80. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

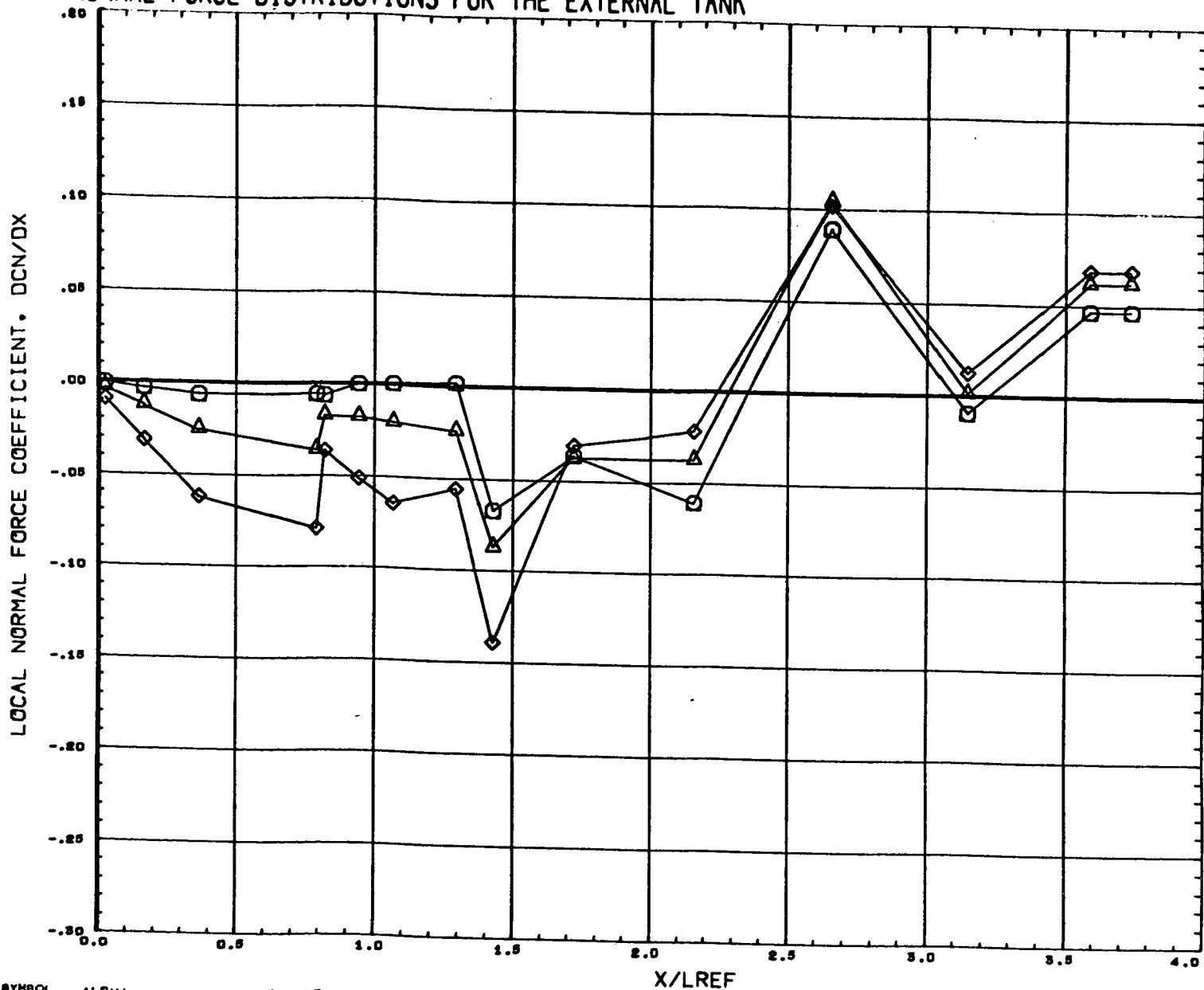
(A70600)

17 FEB 73

PAGE

817

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ - 4.000
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

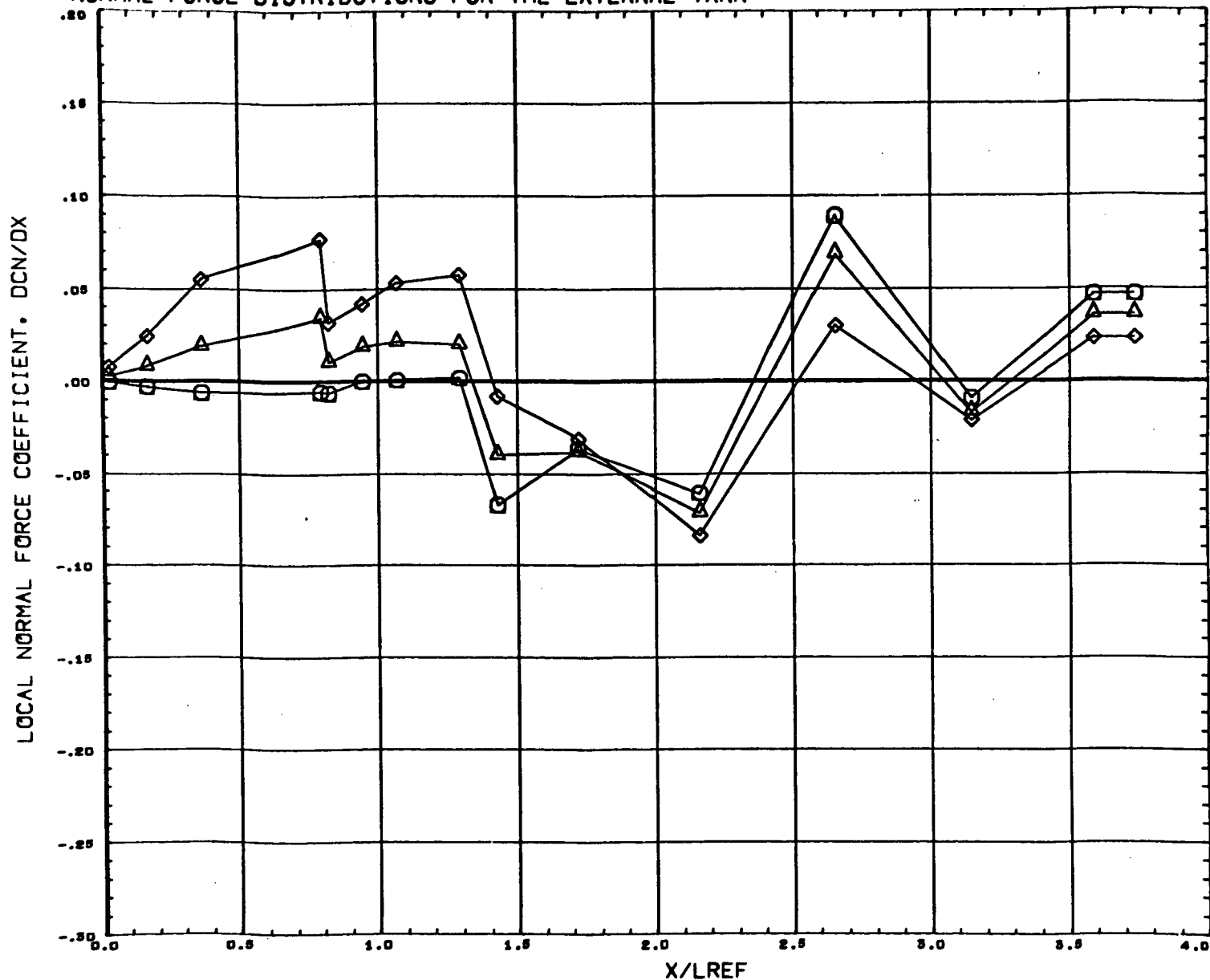
(A70600)

17 FEB 73

PAGE

818

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

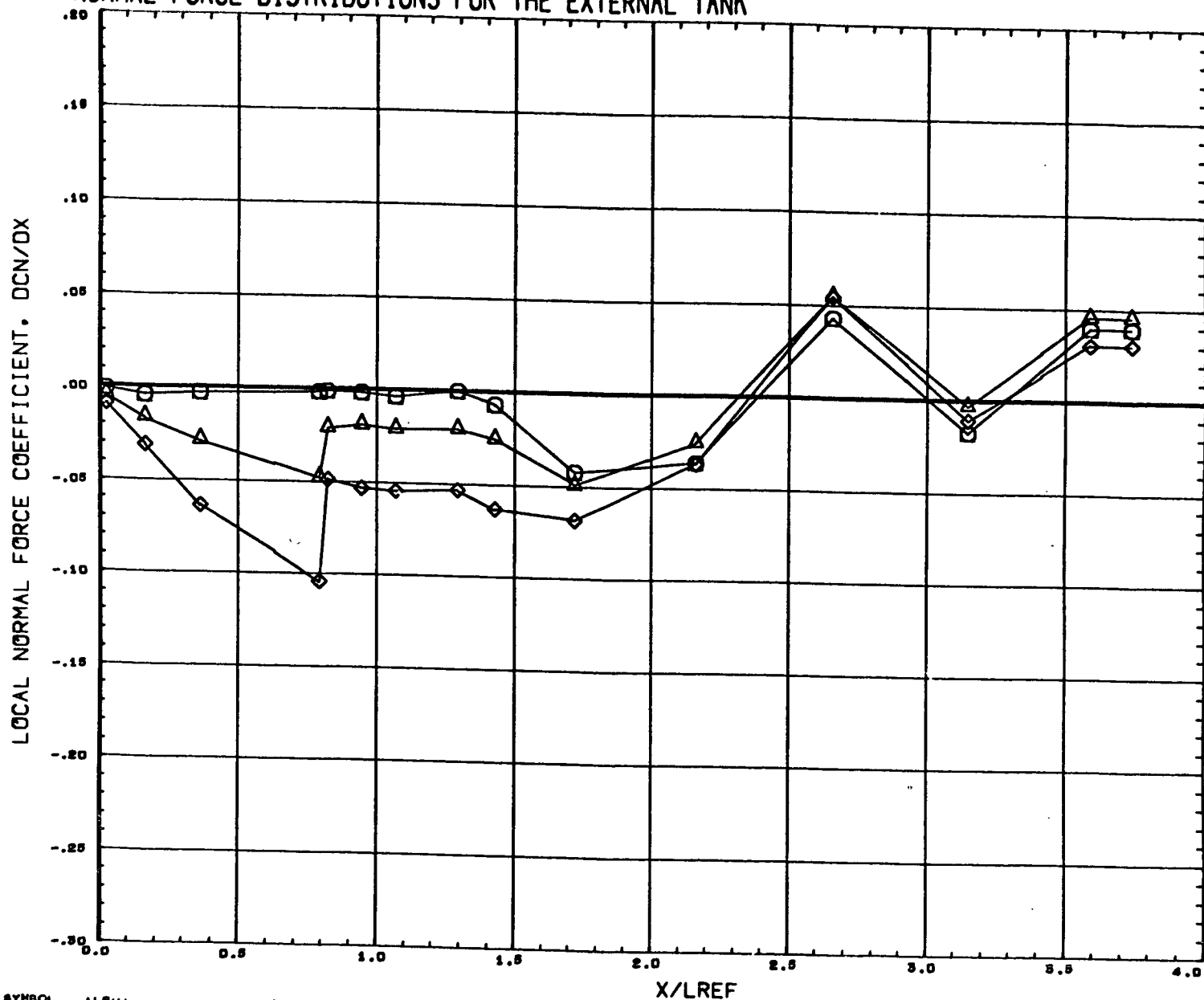


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000		0.000 ORBINC - 1.500
△	4.000		
◇	10.000		

MACH 1.46

REFERENCE INFORMATION		
SREF	7.8800	99. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2490	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000
 △ - 4.000
 ◇ - 10.000
 0.000 ORBINC - 1.500

MACH 1.96

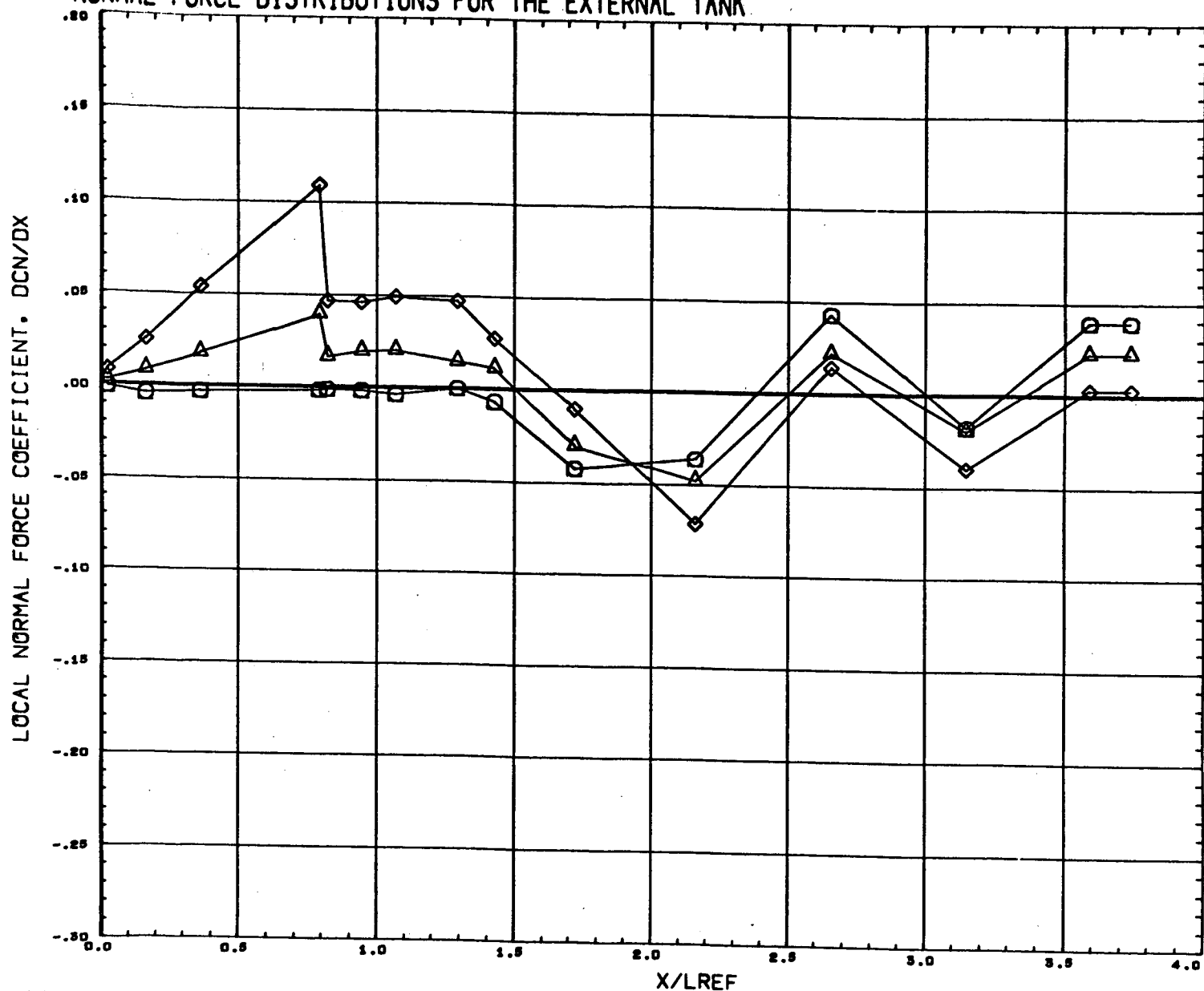
REFERENCE INFORMATION
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 LREF 2.0260 INCHES
 BREF 4.4800 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(A70600) 17 FEB 73

PAGE 820

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES

◇ 0.000 0.000 ORBINC - 1.500

△ 4.000

□ 10.000

MACH 1.96

REFERENCE INFORMATION

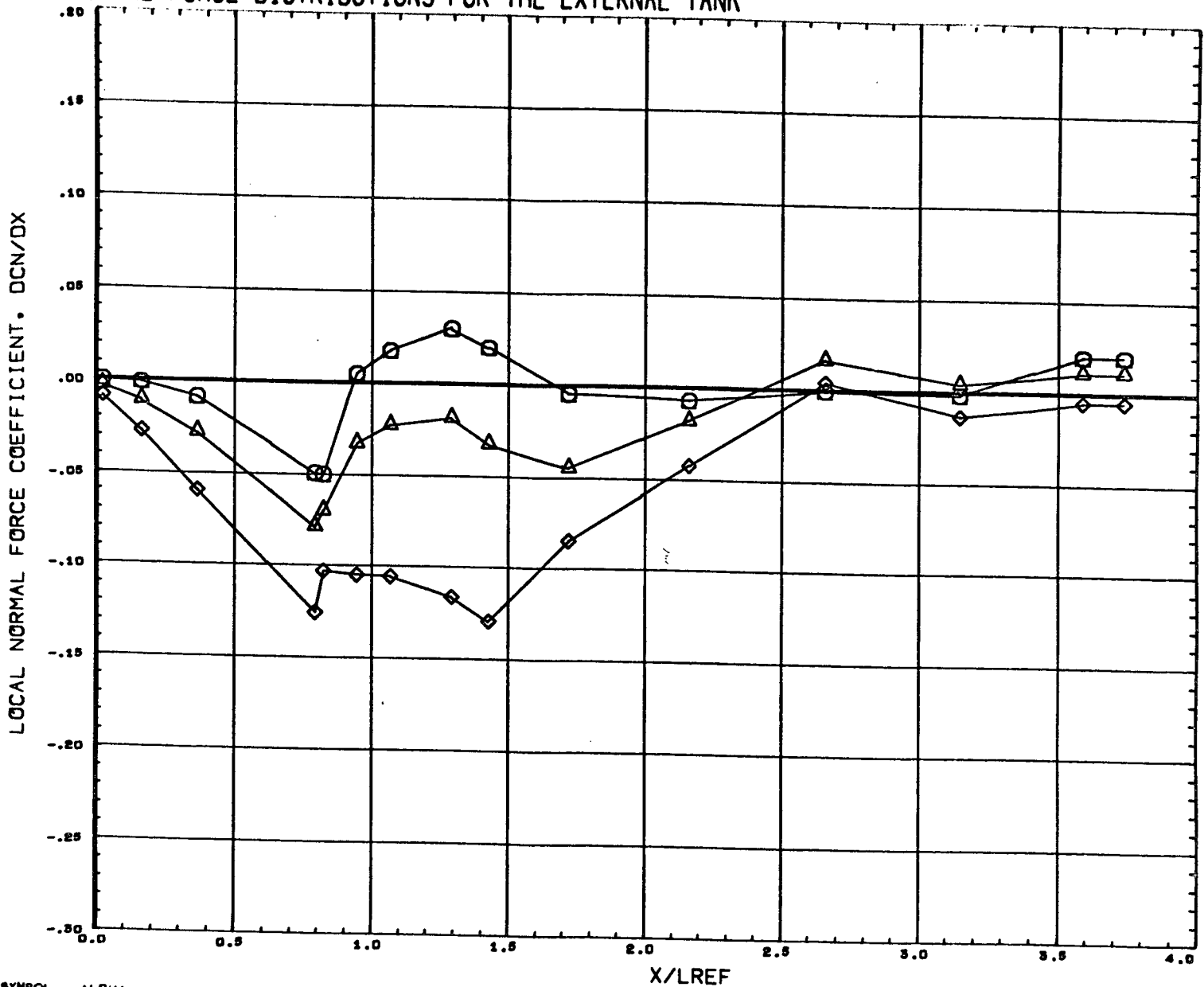
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LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(A70600) 17 FEB 73

PAGE 821

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



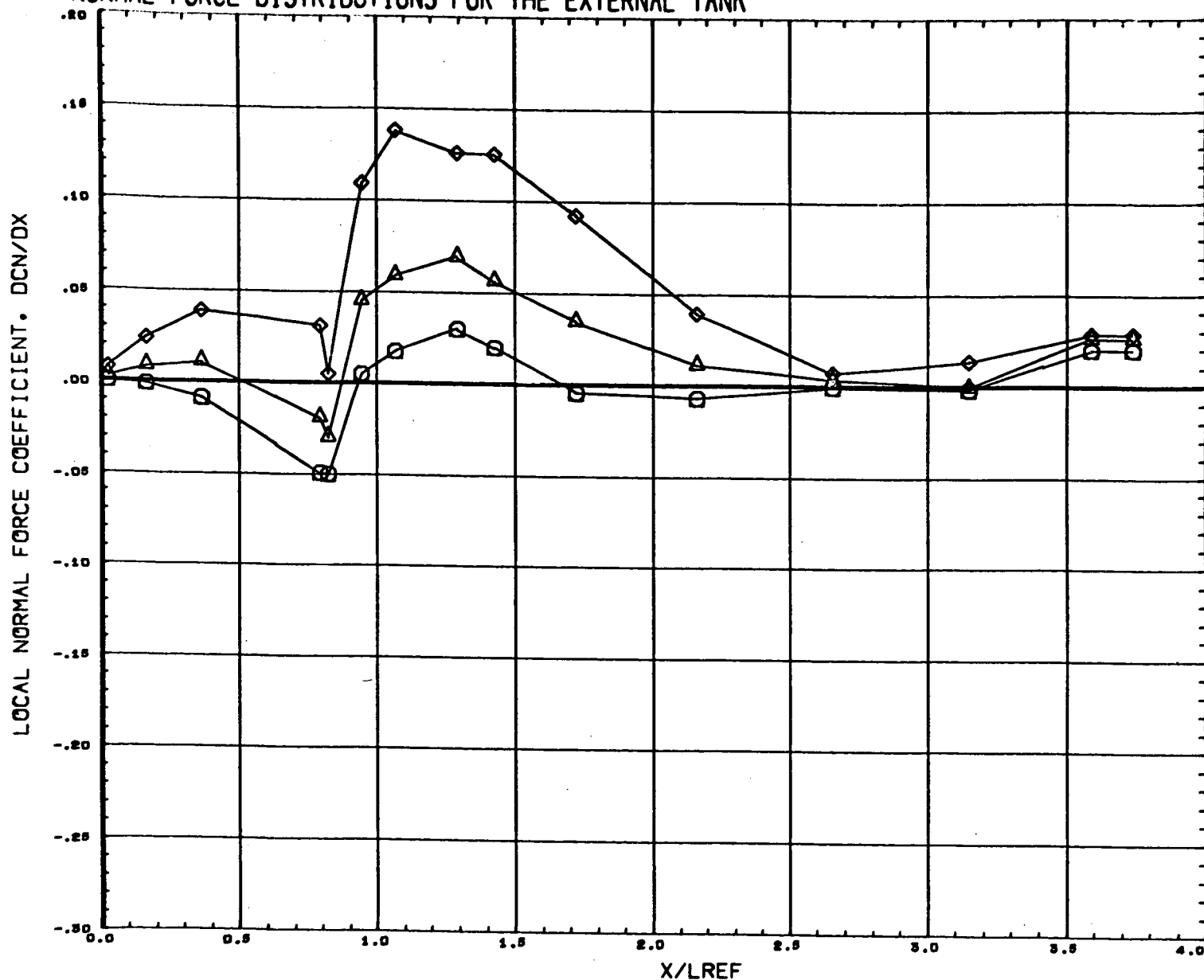
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 SRBGAP 0.025
 △ - 4.000
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	89. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

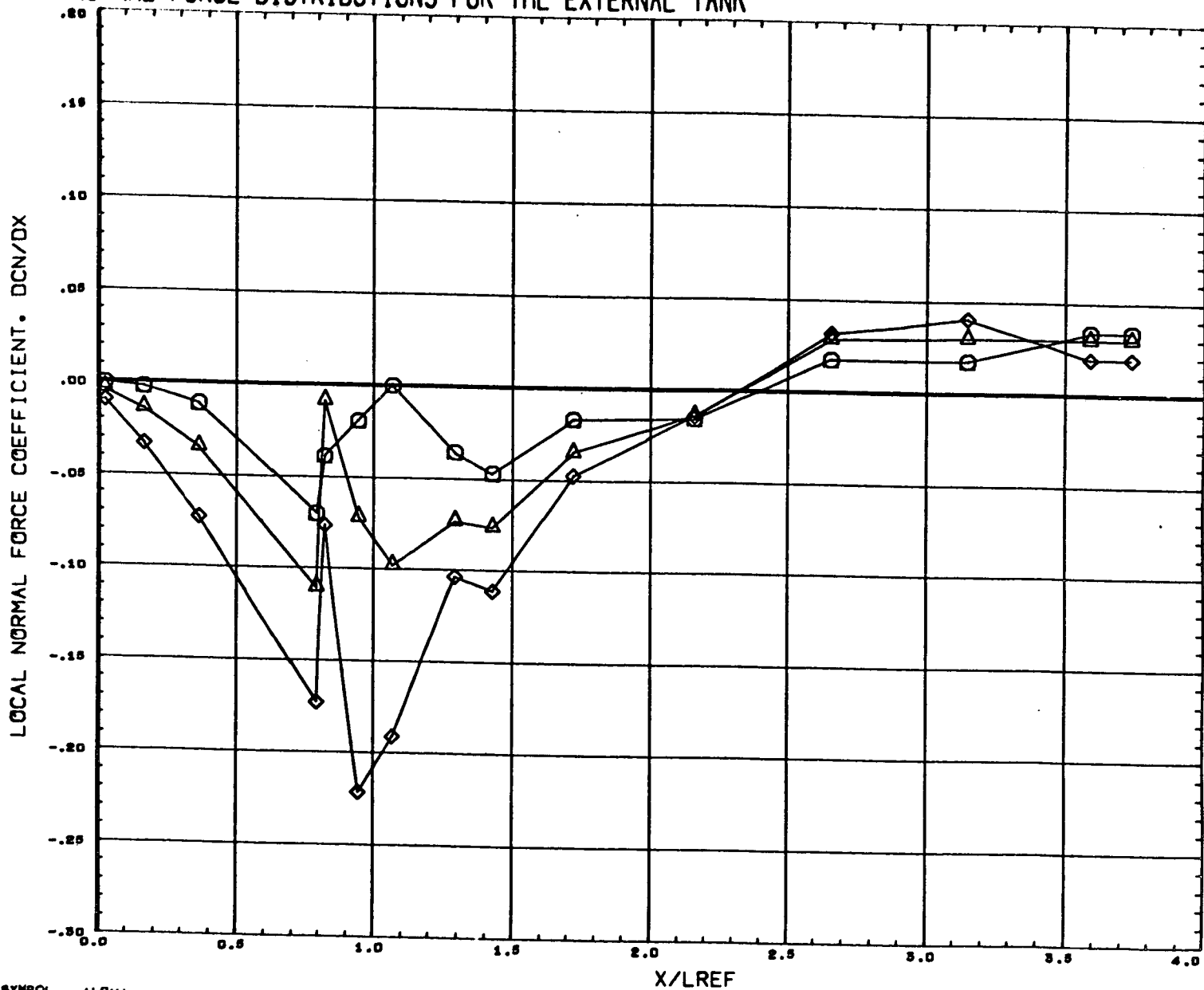


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000		0.000 SRBGAP 0.025
△	4.000		
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	39. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

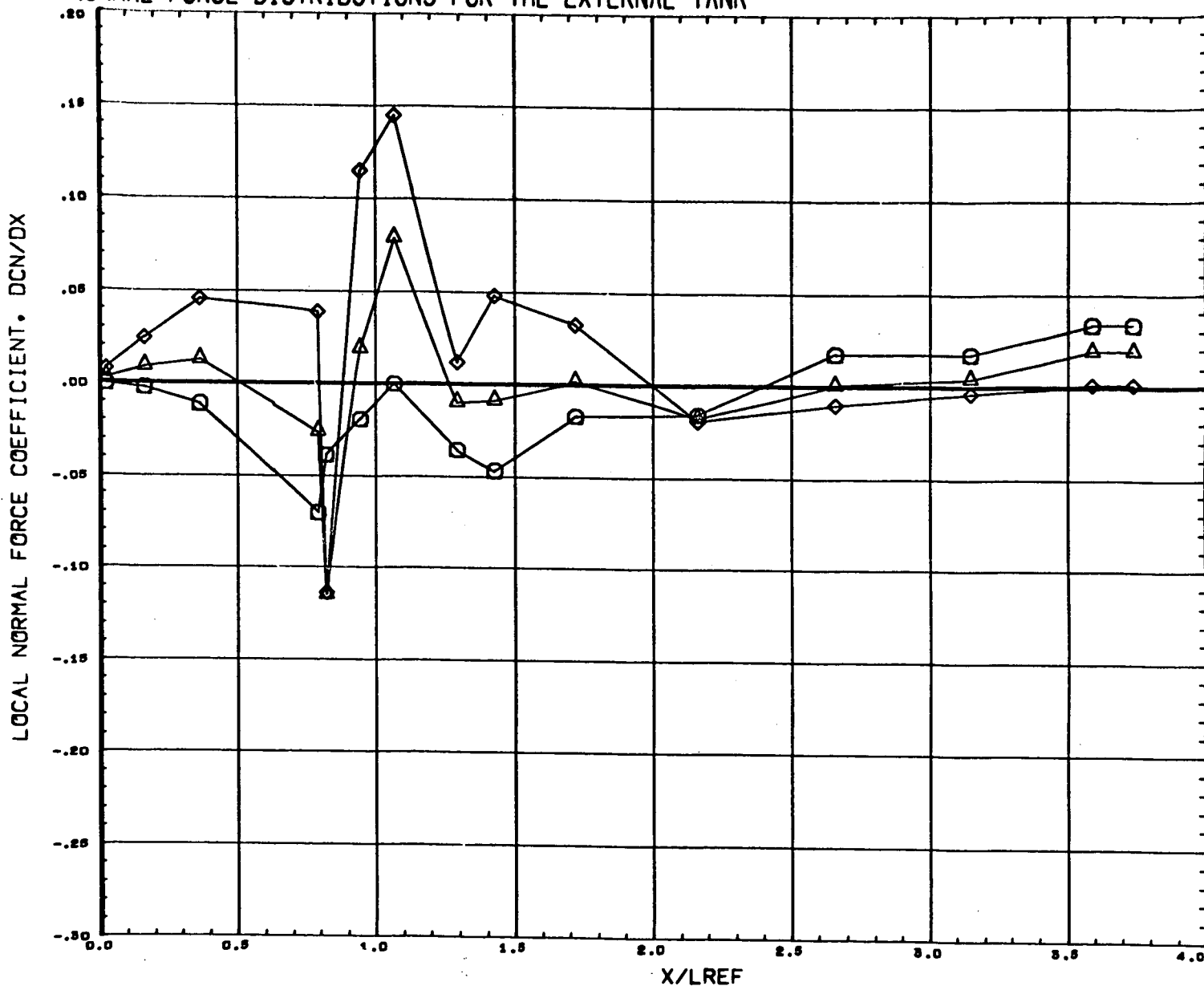


SYMBOL	ALPHA	PARAMETRIC VALUES	
○	0.000	BETA	0.000 ORBINC - 1.500
△	- 4.000	SRBCAF	0.025
◇	- 10.000		

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .80

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

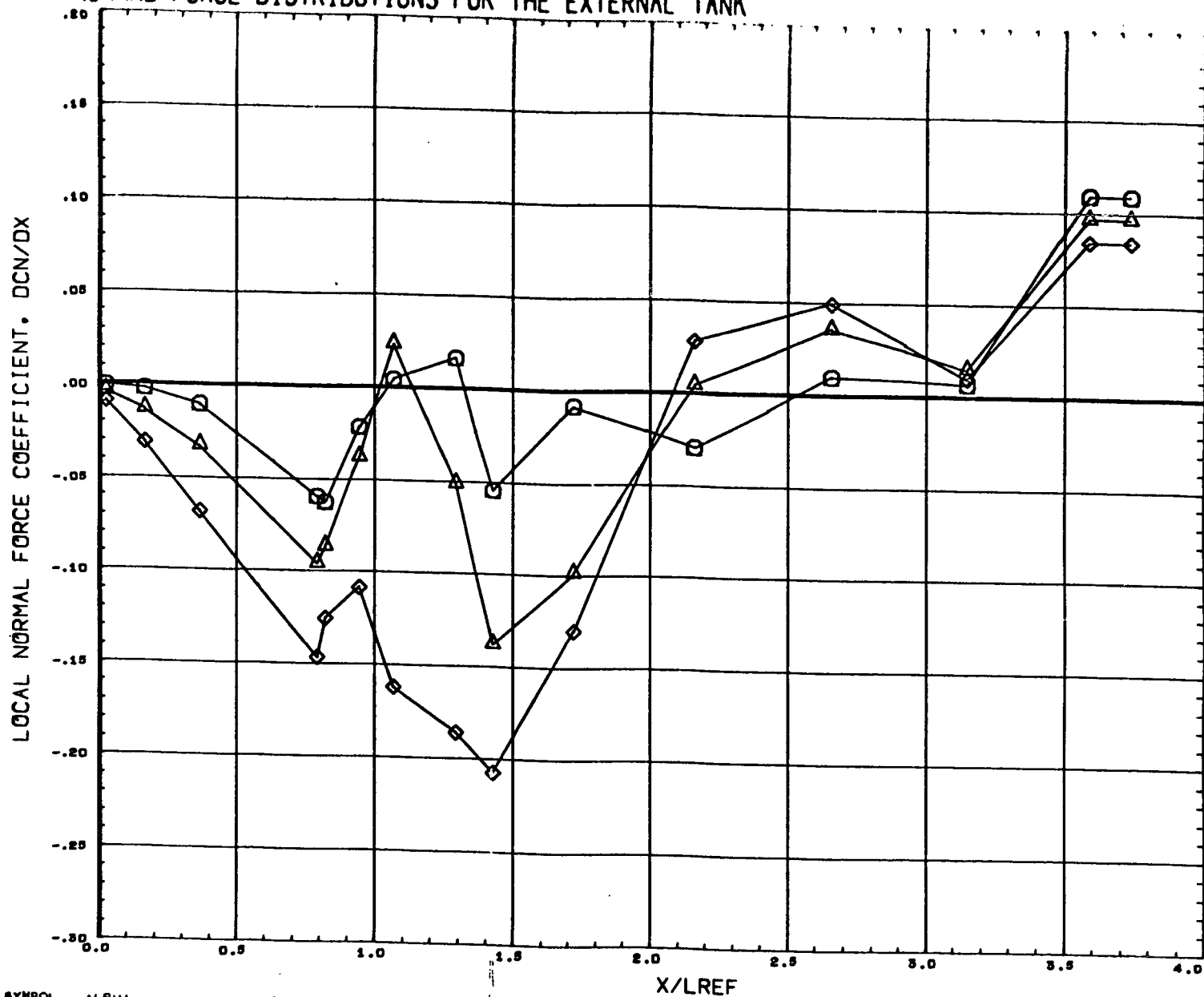


SYMBOL	ALPHA	PARAMETRIC VALUES	
○	0.000	BETA	0.000 ORBINC - 1.500
△	4.000	SRBCAP	0.025
◇	10.000		

MACH .80

REFERENCE INFORMATION		
SREF	7.8800	86.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



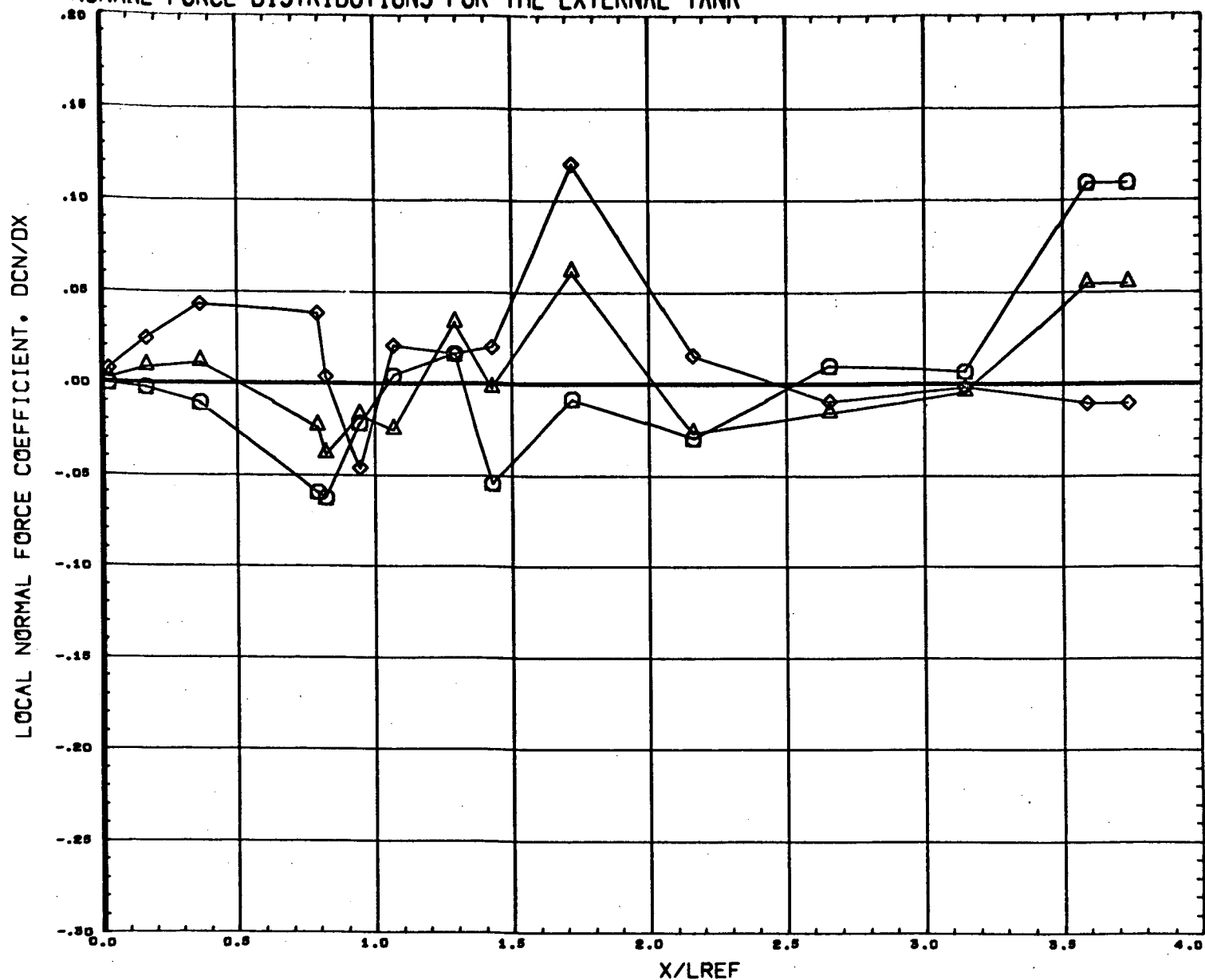
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.000
 △ - 4.000 SRBCAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

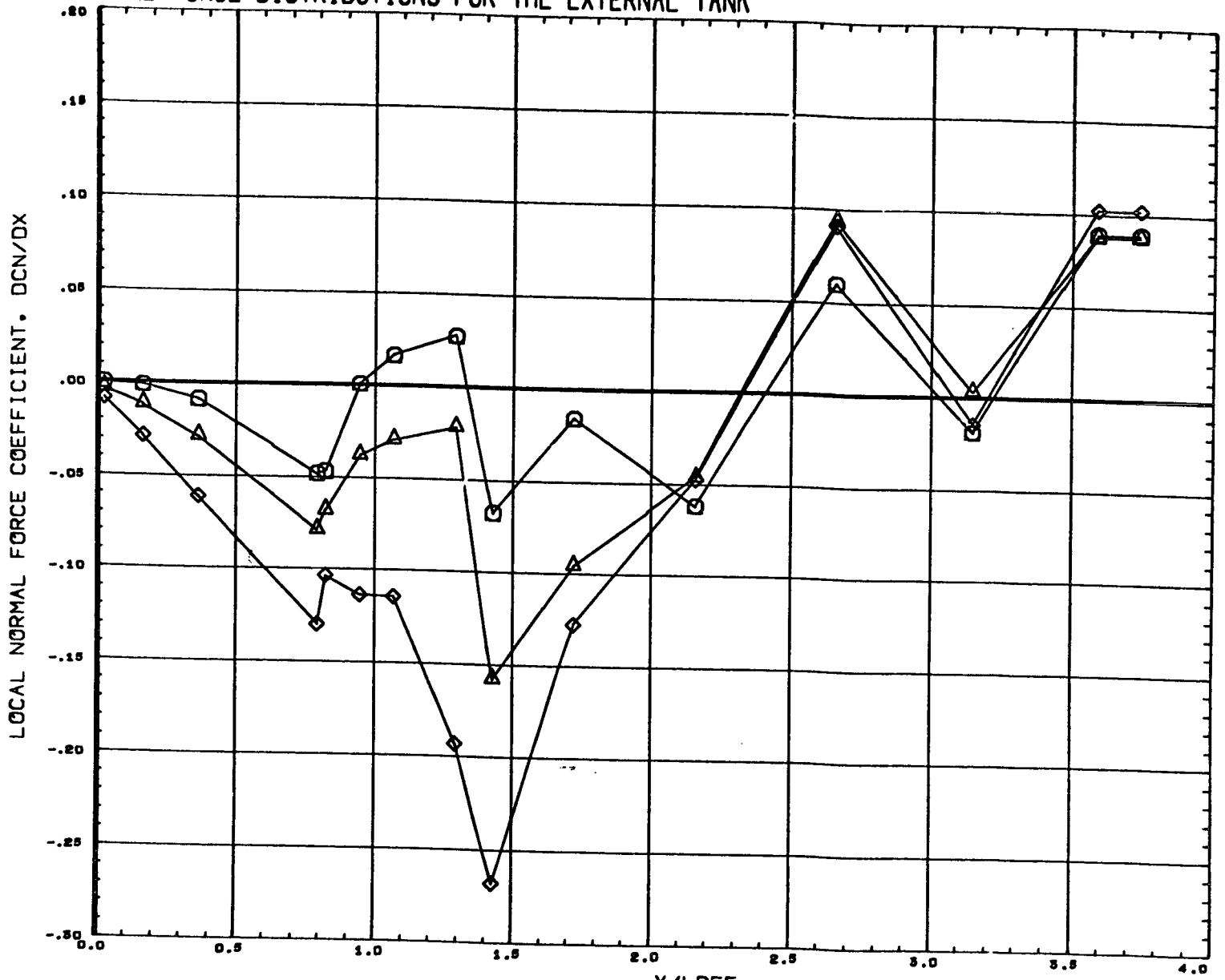


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBCAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8600	89. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL ALPHA BETA PARAMETRIC VALUES

○ 0.000 0.000 ORBINC - 1.500

△ - 4.000 SRBGAP 0.025

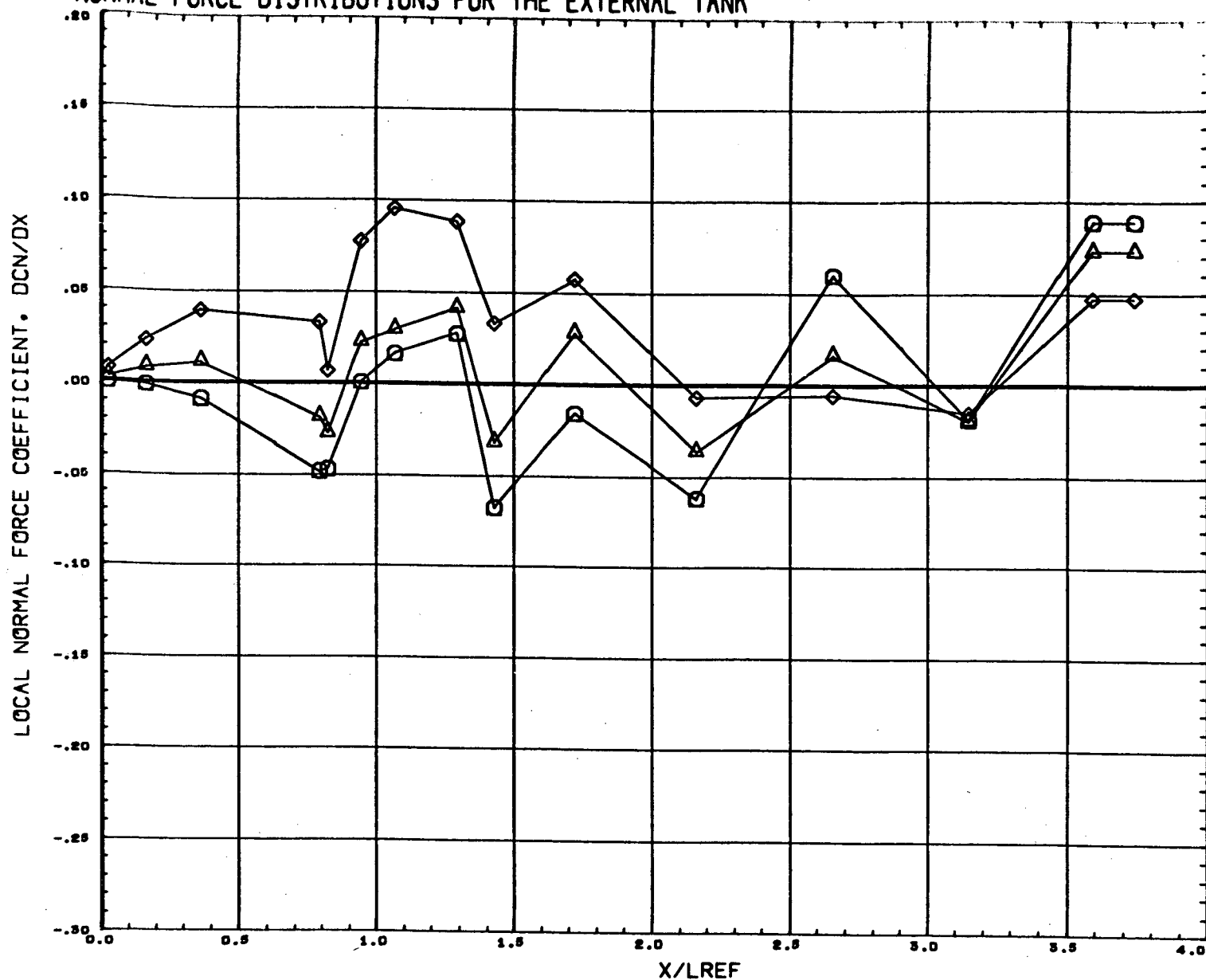
◇ - 10.000

MACH 1.20

REFERENCE INFORMATION

SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

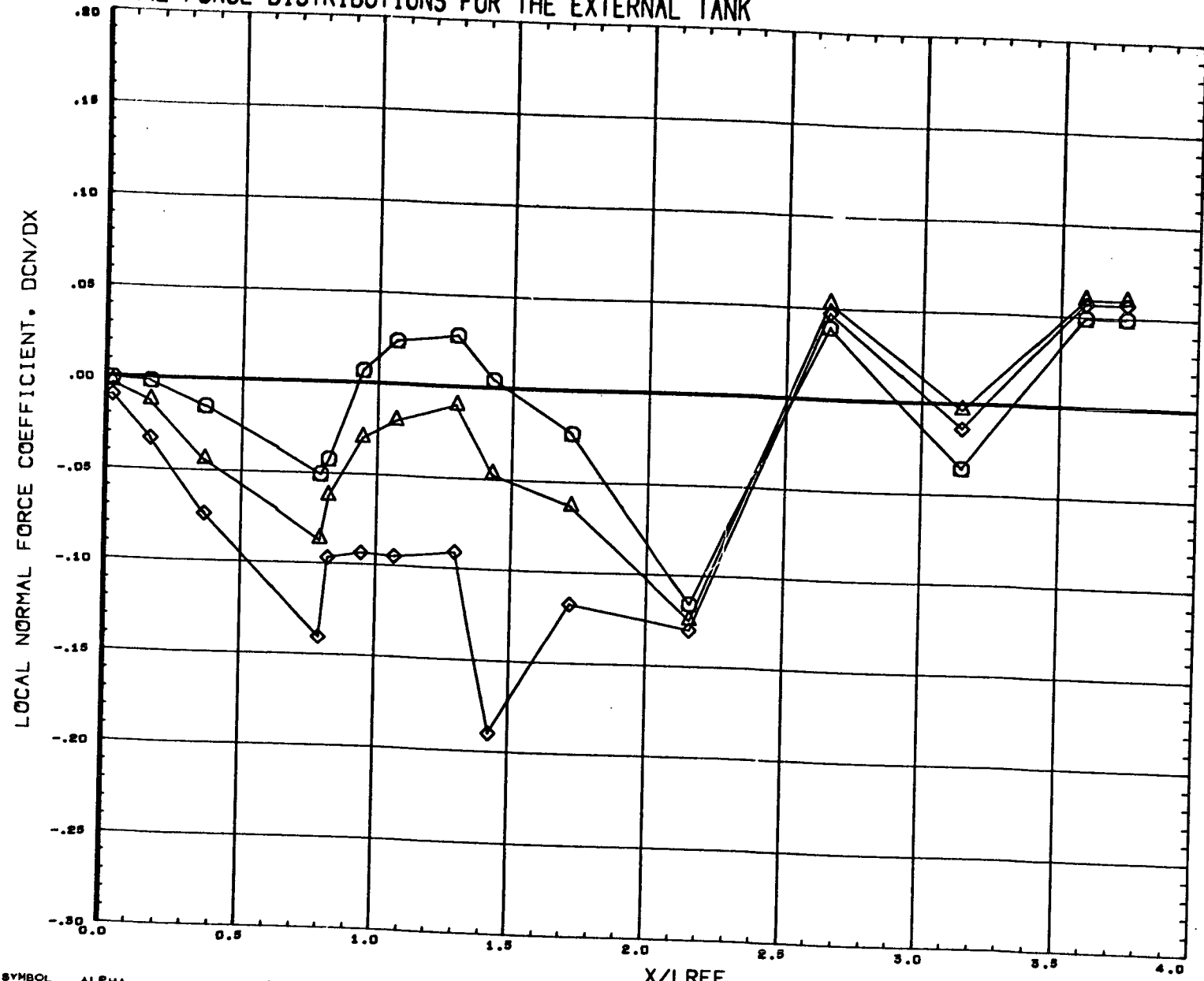


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	39. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



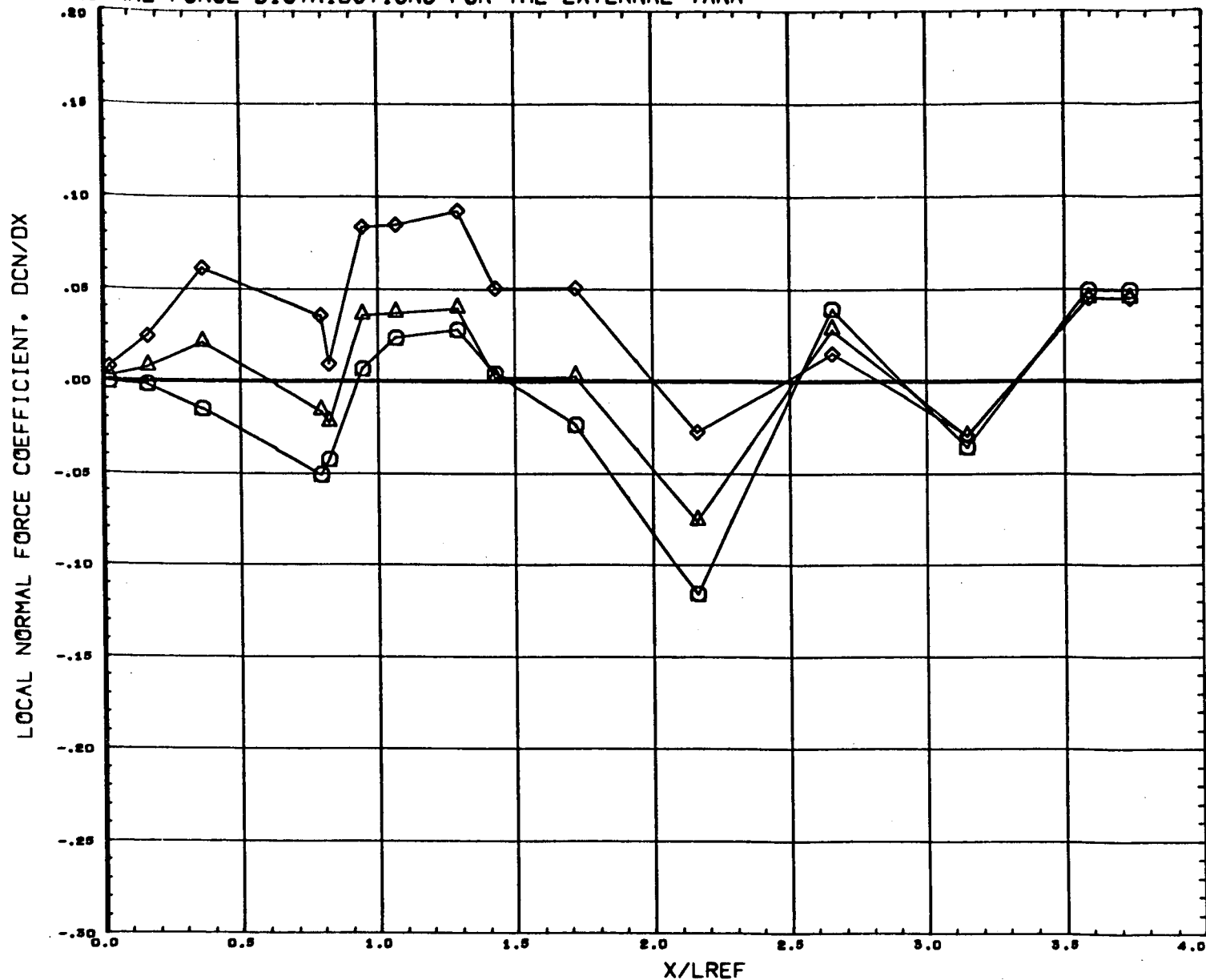
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000 ORBINC - 1.500
 △ - 4.000 0.025
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	39. IN.
LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

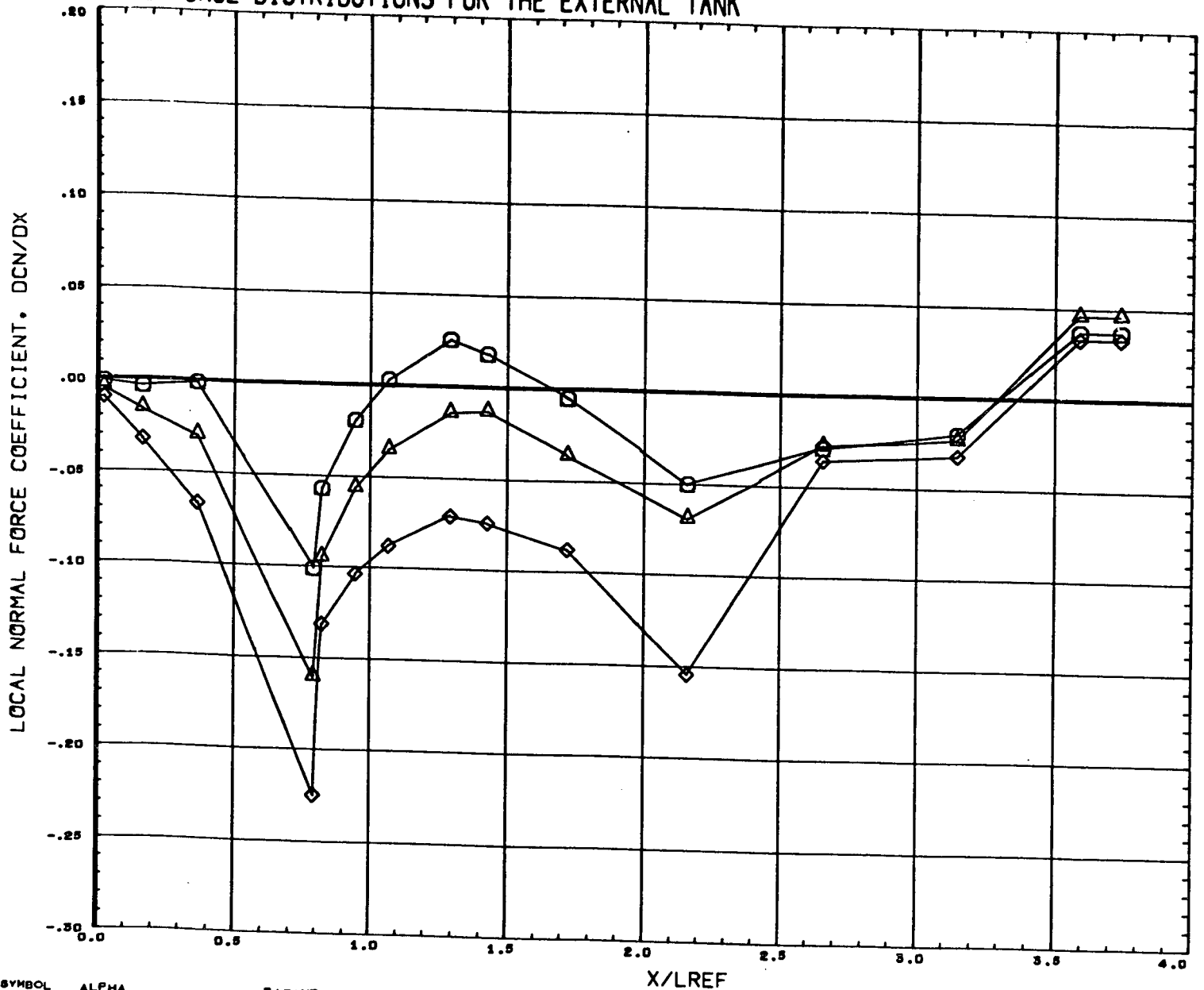


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ 4.000 0.025
 ◇ 10.000

MACH 1.46

REFERENCE INFORMATION
 SREF 7.6800 80. IN.
 LREF 2.0260 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



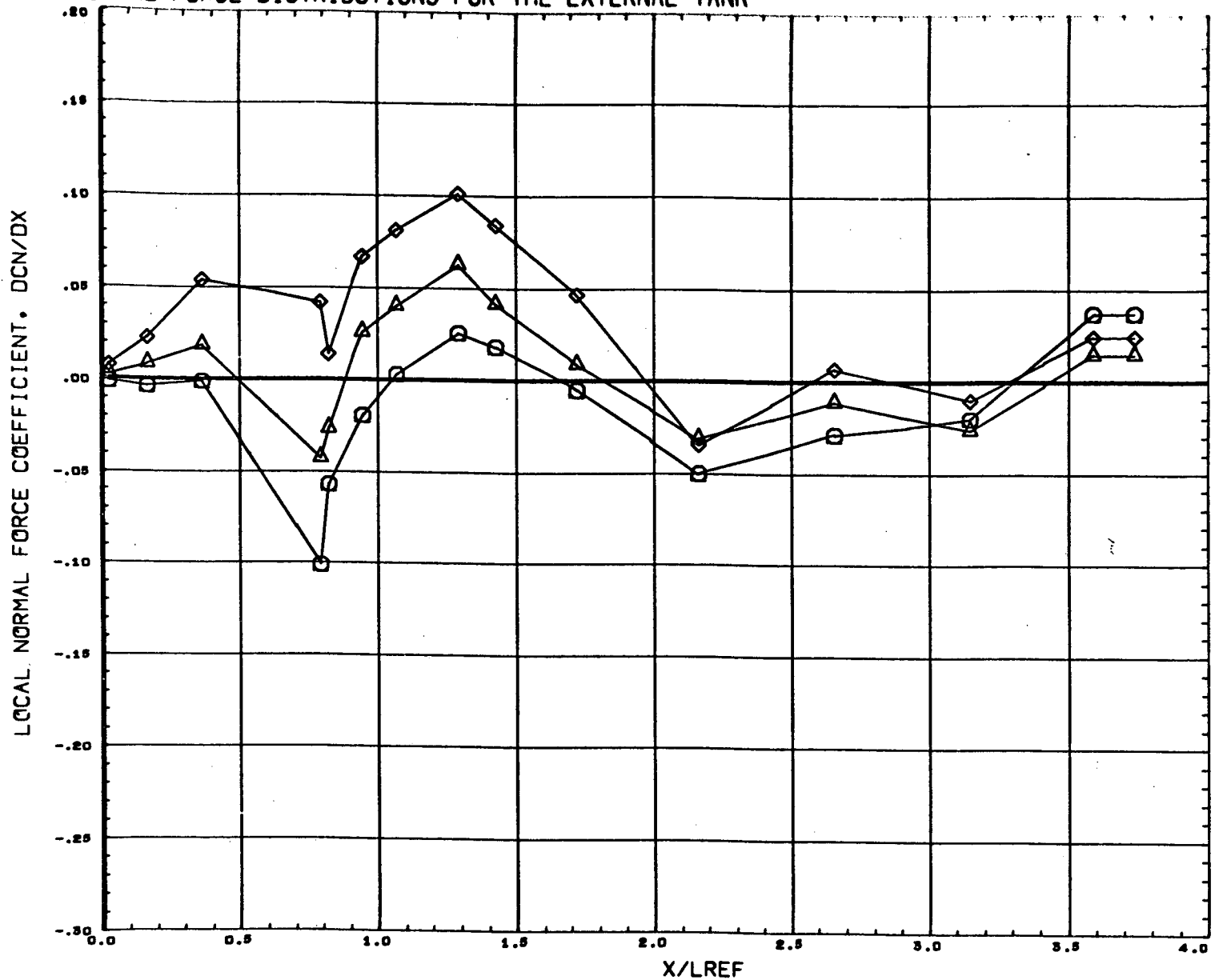
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000 ORBINC - 1.500
 △ - 4.000 0.025
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.6800	80. IN.
LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2260	INCHES
VMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.96

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

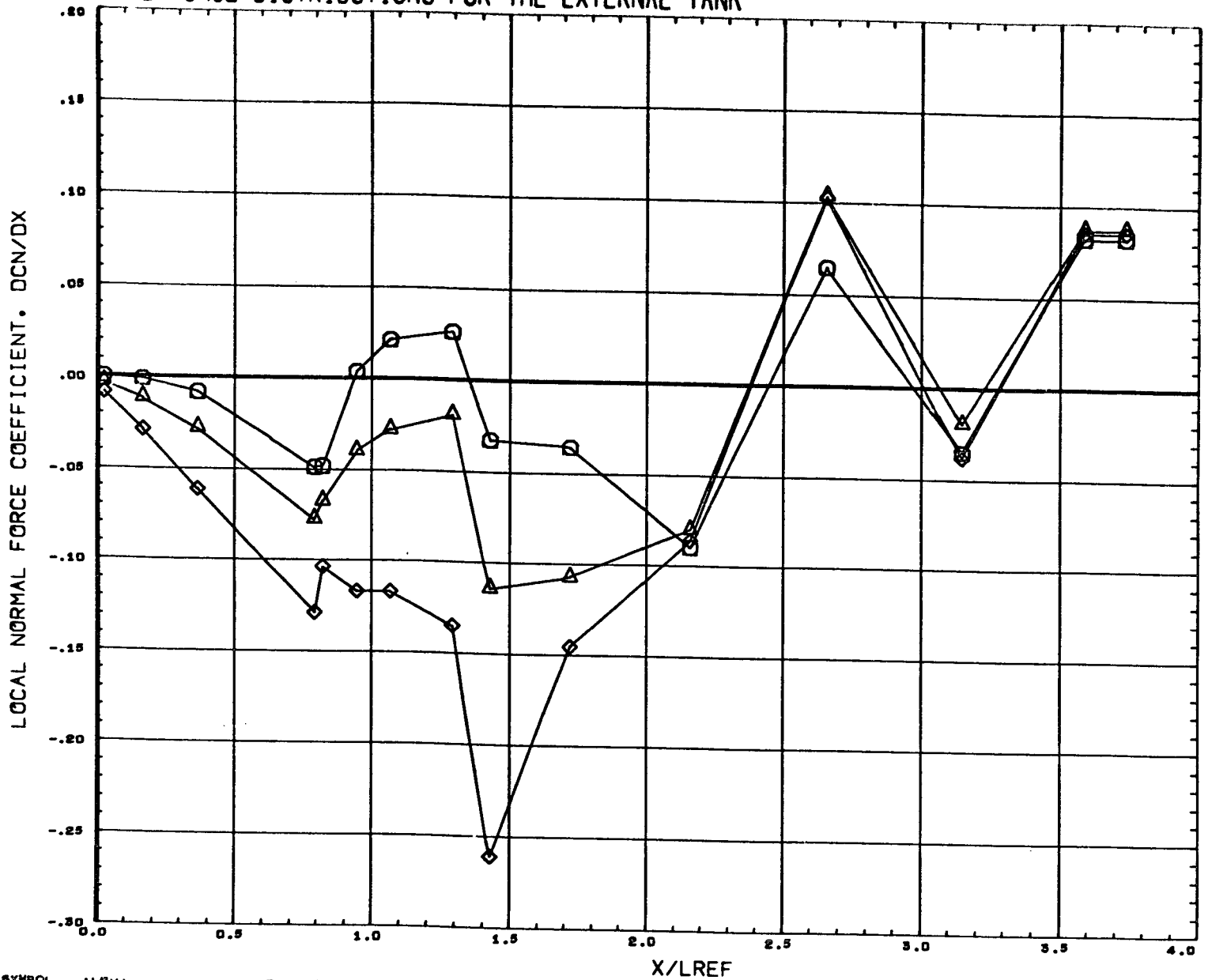


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	- 1.500
△	4.000	SRBGAP	0.025	
◇	10.000			

MACH 1.96

REFERENCE INFORMATION		
SREF	7.8800	50. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

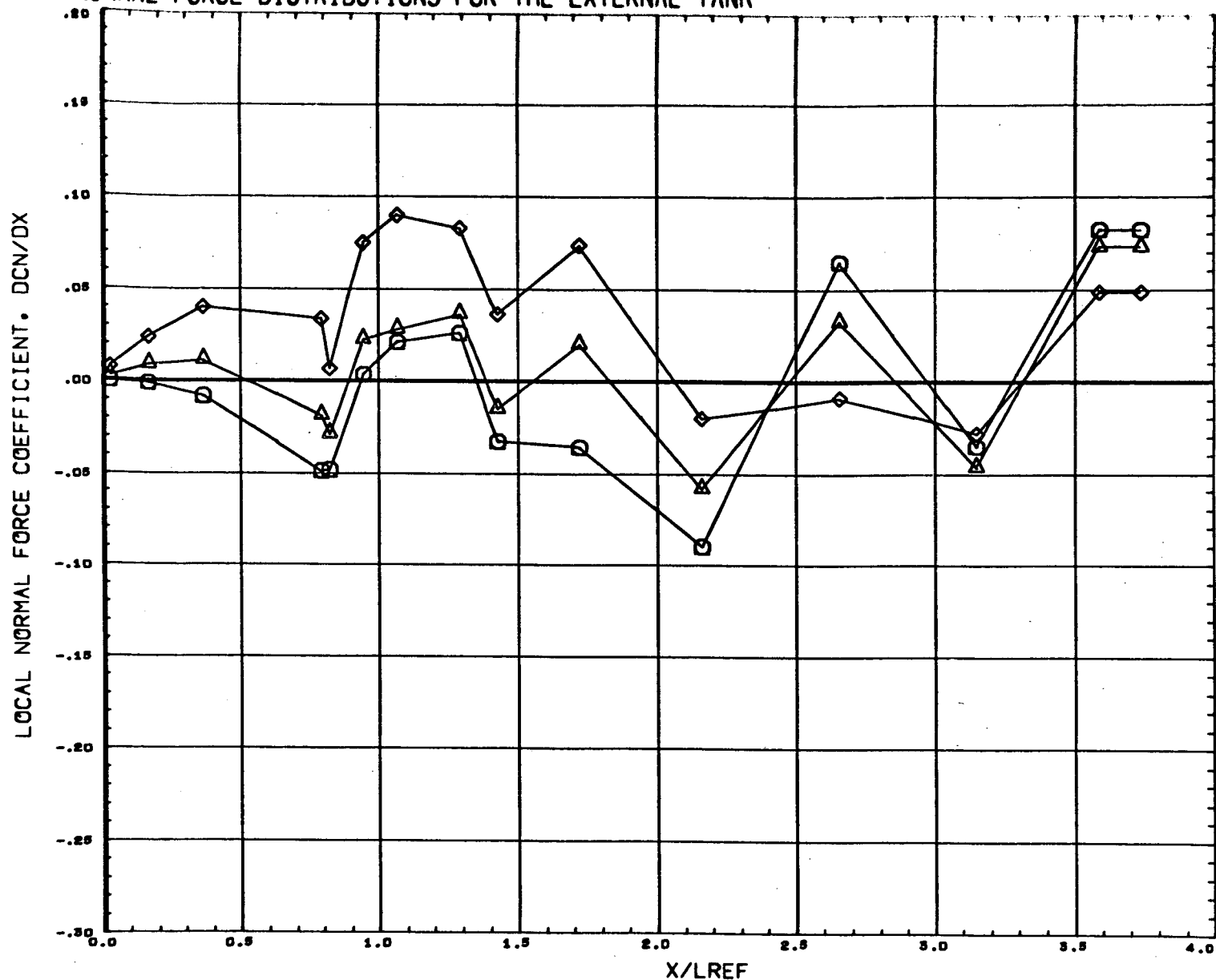


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	ORBINC	0.000
○	0.000	0.000	0.000		
△	- 4.000	SRBGAP	0.025		
◇	- 10.000				

REFERENCE INFORMATION		
SREF	7.6800	90. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

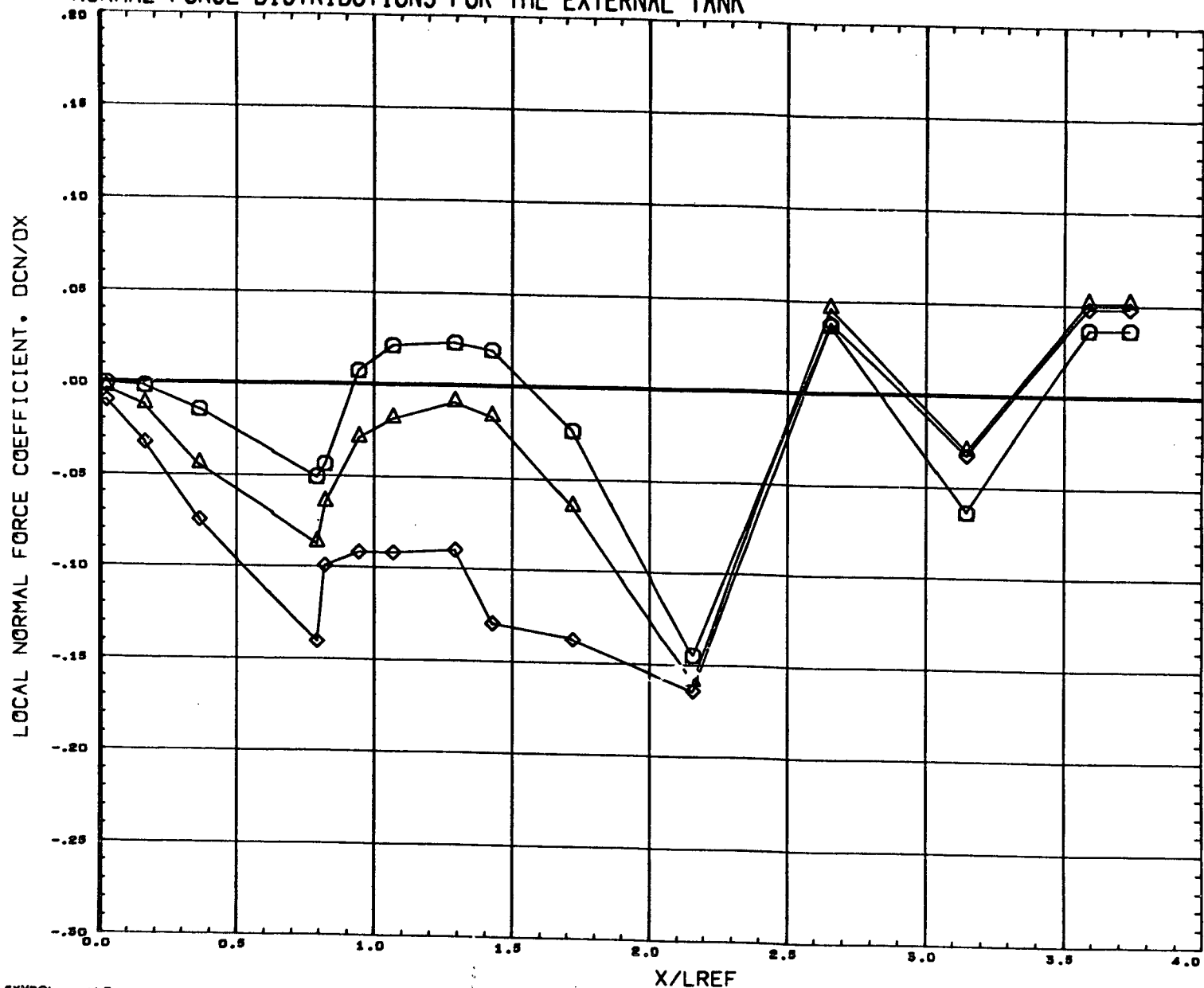


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	ORBINC	
○	0.000	0.000	0.000	0.000	
△	4.000	0.025			
◇	10.000				

REFERENCE INFORMATION		
SREF	7.8800	90. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

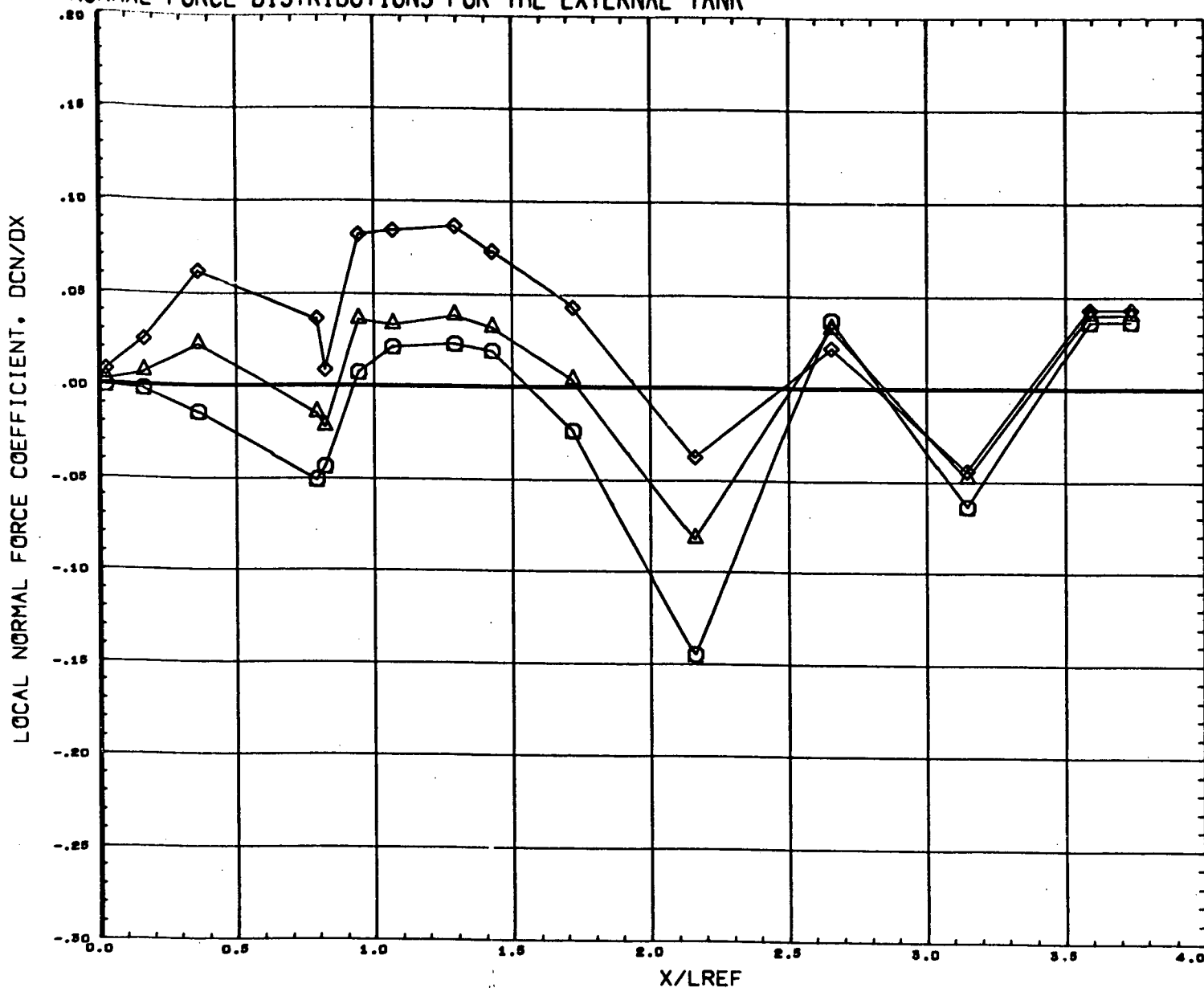


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	ORBINC	Q.000
○	0.000	0.000			
△	- 4.000	SRBGAP	0.025		
◇	- 10.000				

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	ORBNIC	0.000
○	0.000	0.000	0.000	0.000	
△	4.000	0.025			
◇	10.000				

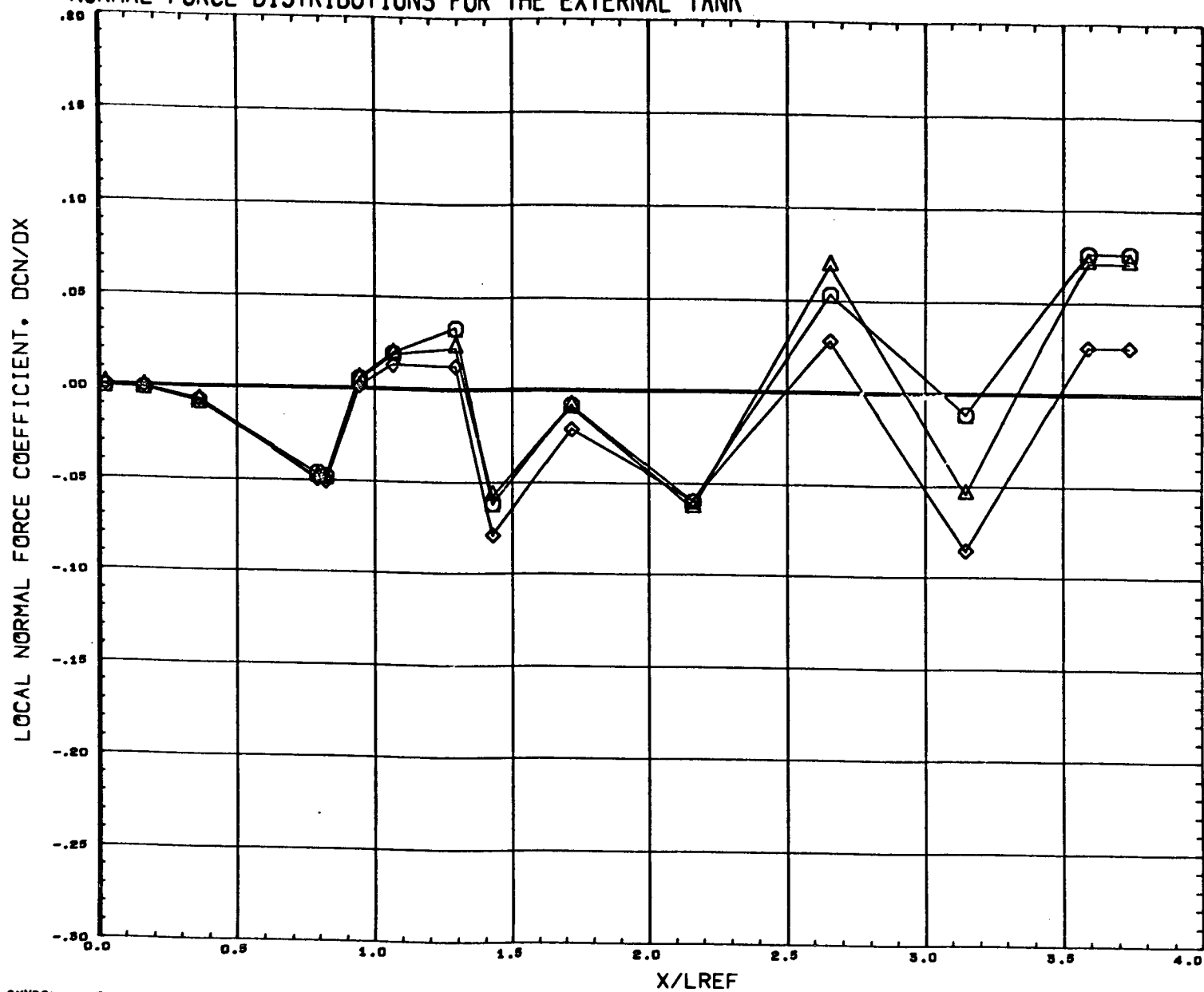
REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
SRFP	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM. T1S101 (A702TK) 17 FEB 73 PAGE 837

C10

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

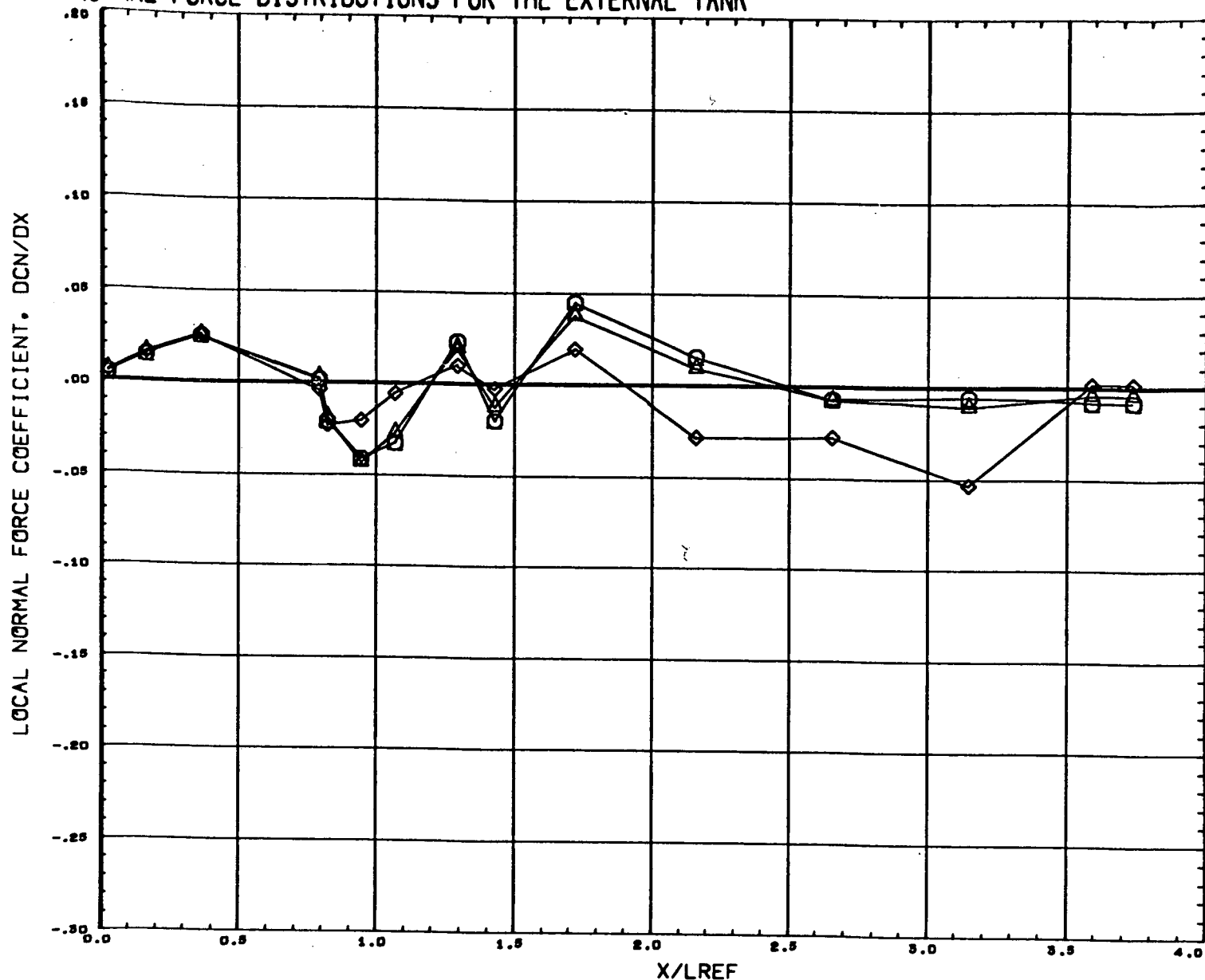


SYMBOL	PARAMETRIC VALUES			
	BETA	ALPHA	ORBINC	- 1.500
	0.000	0.000		
	4.000	SRBCAP	0.025	
10.000				

REFERENCE INFORMATION		
SREF	7.8800	SQ. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

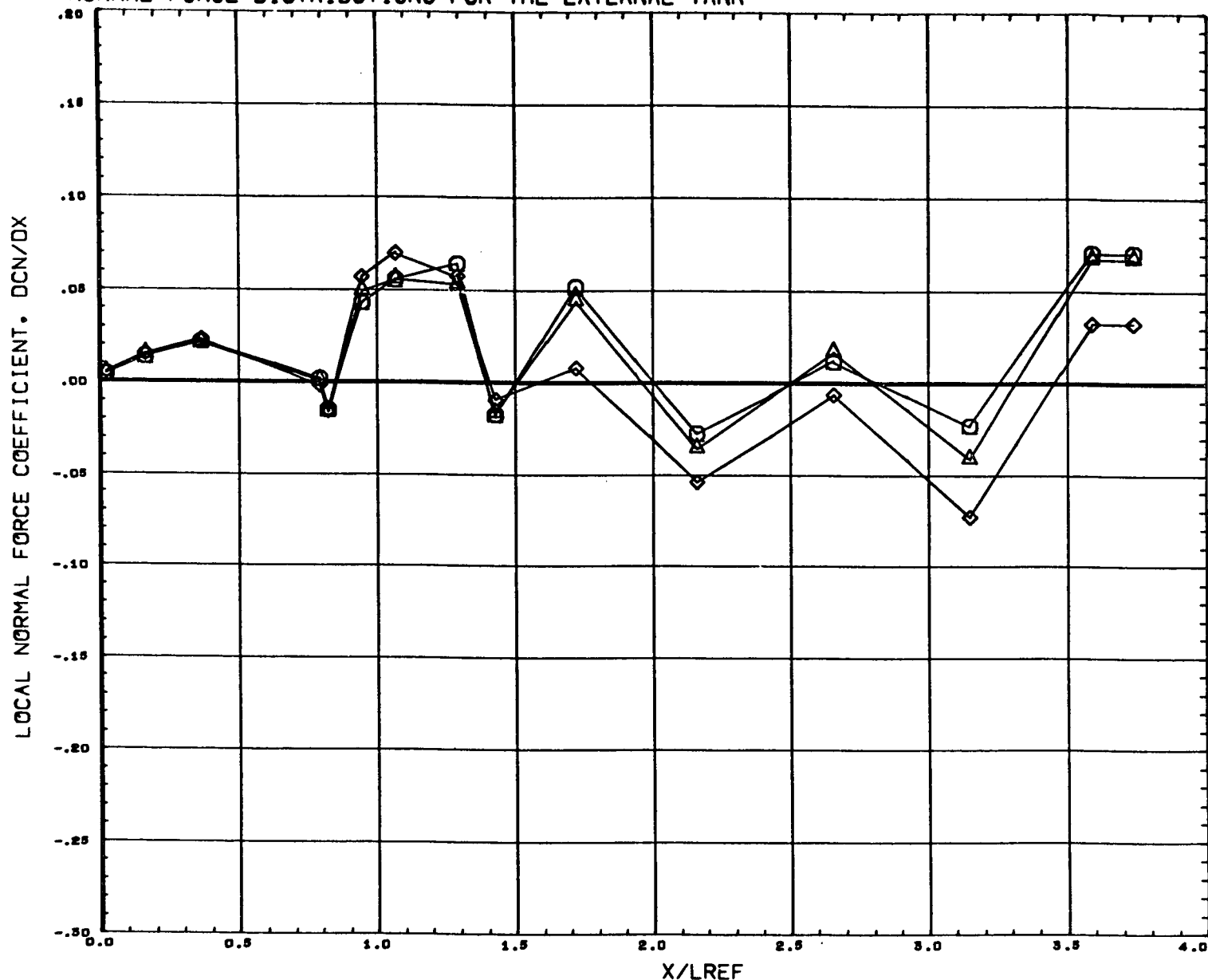


SYMBOL	BETA	ALPHA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

NORMAL FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

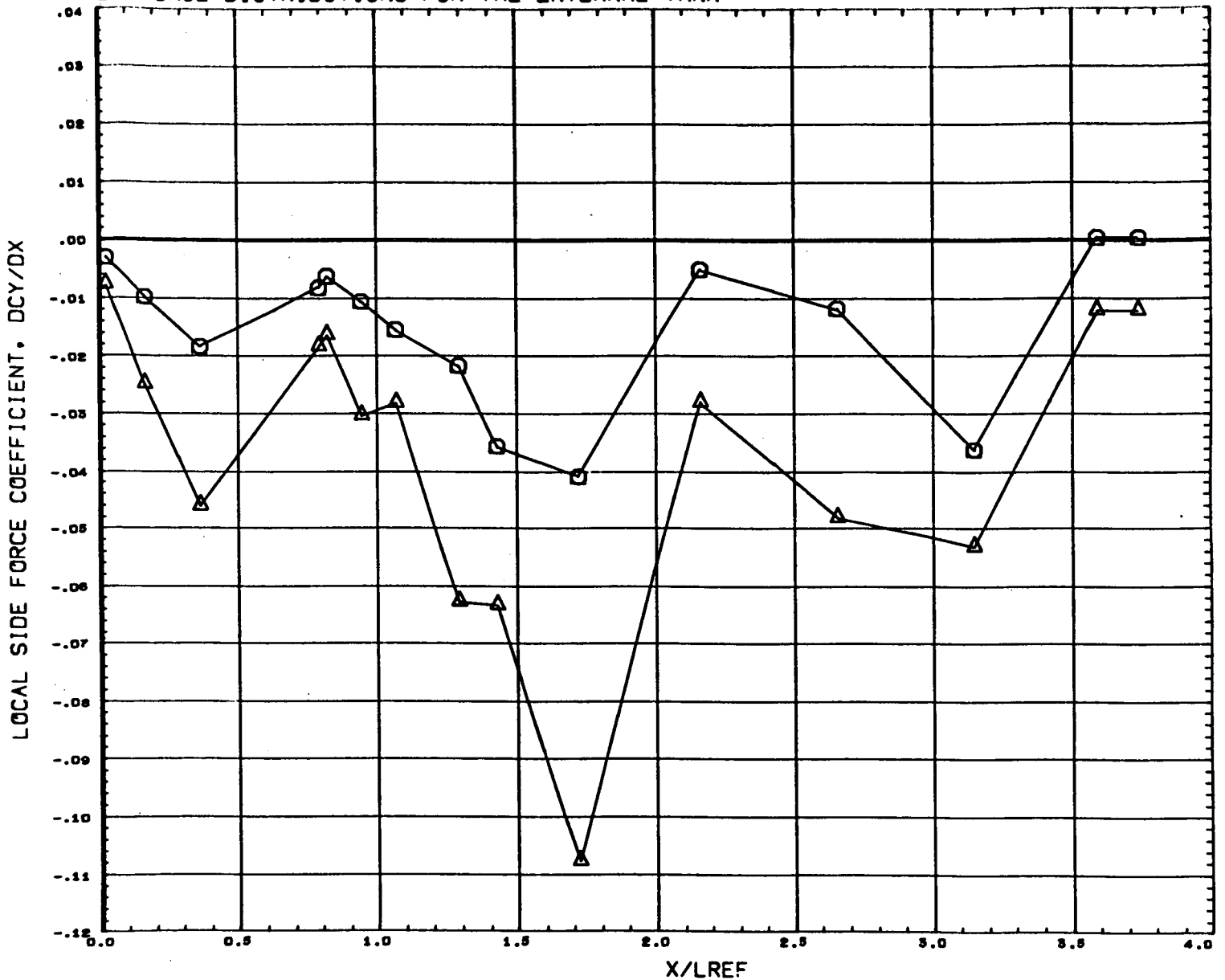




SYMBOL	BETA	PARAMETRIC VALUES	
○	0.000	ALPHA	6.000 ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.6600	90.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

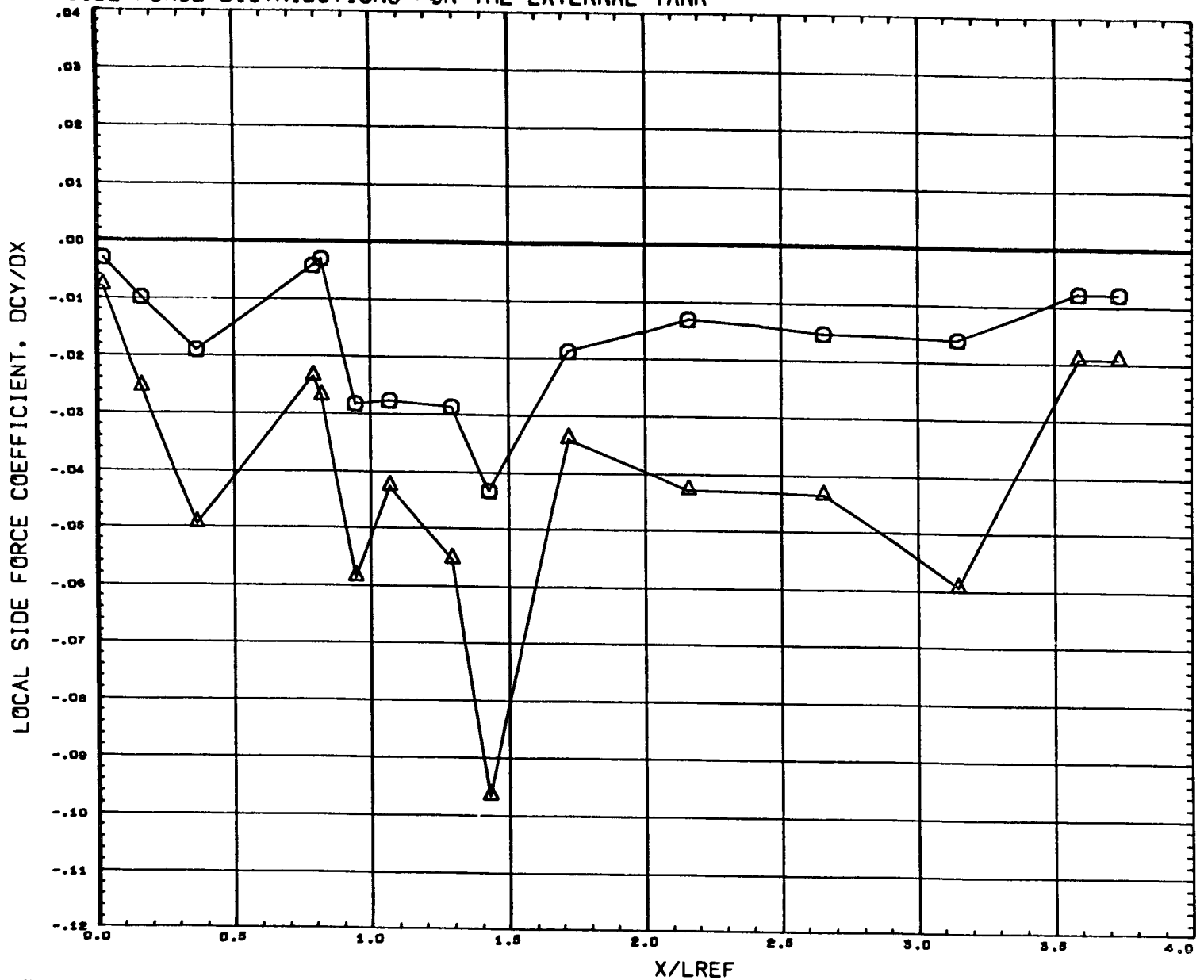


SYMBOL	BETA	ALPHA	PARAMETRIC VALUES
	4.000	0.000	ORBINC - 1.500
	10.000	SRBGAP	0.025

REFERENCE INFORMATION		
SRF	7.6800	89. IN.
LRF	2.0280	INCHES
BRF	4.4600	INCHES
XHRP	4.2260	INCHES
YHRP	0.0000	INCHES
ZHRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK



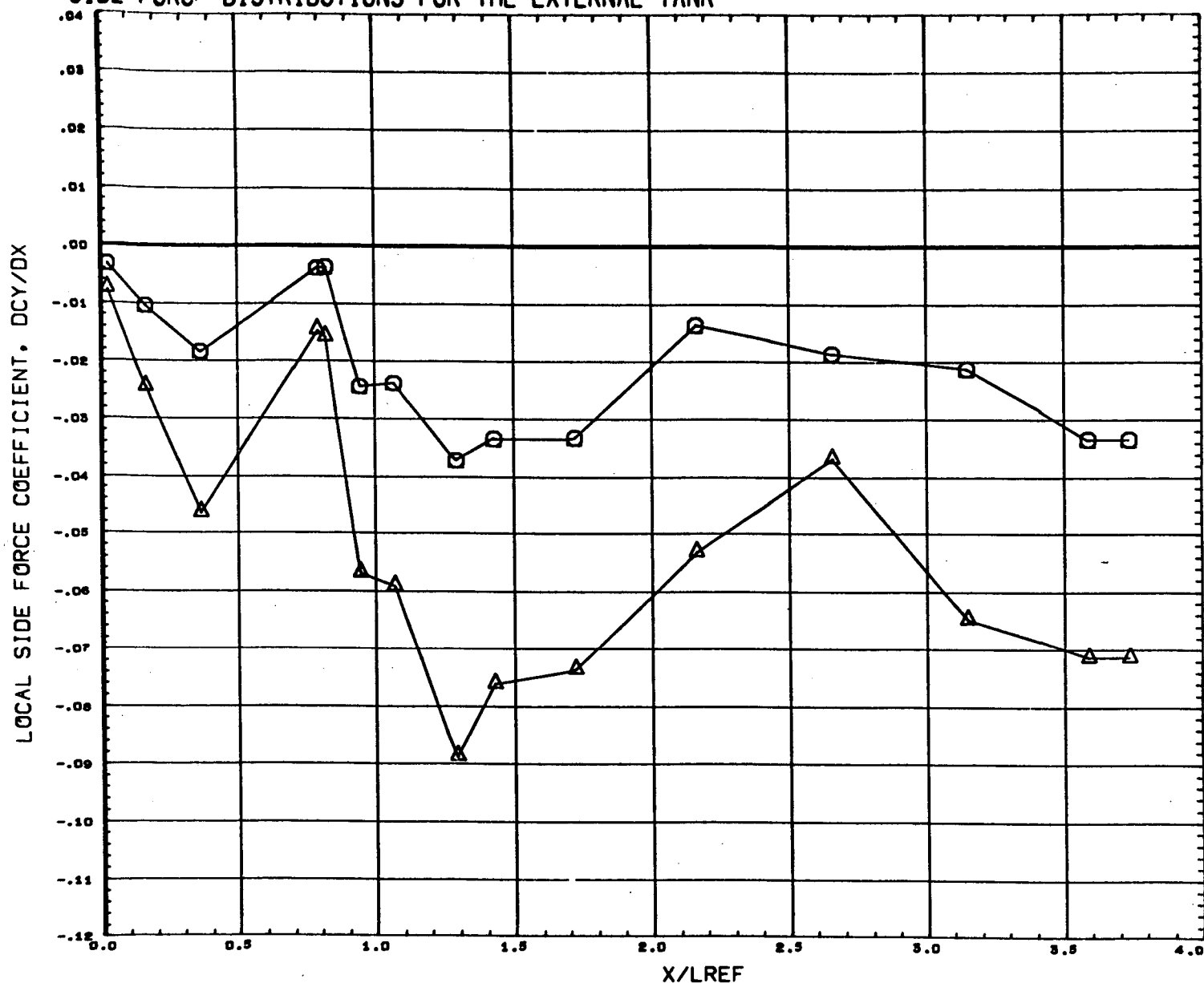
SYMBOL \circ BETA 4.000 ALPHA 6.000 ORBINC - 1.500
 Δ 10.000 SRBCAP 0.025

REFERENCE INFORMATION

SREF	7.8800	89. IN.
LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

SIDE FORCE DISTRIBUTIONS FOR THE EXTERNAL TANK

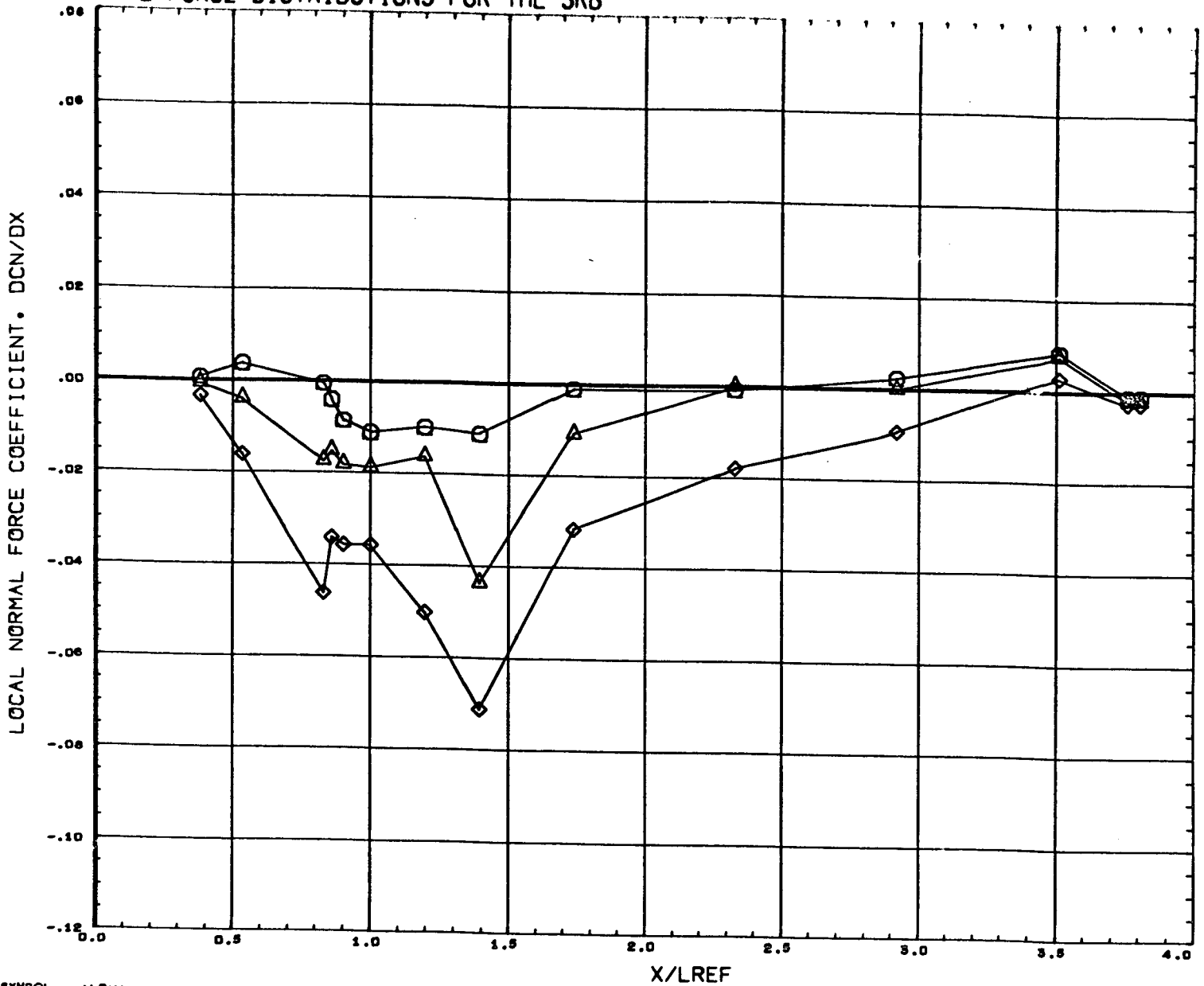


SYMBOL	BETA	PARAMETRIC VALUES		
○	4.000	ALPHA	6.000	ORBINC - 1.500
△	10.000	SRBCAP	0.025	

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4000	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

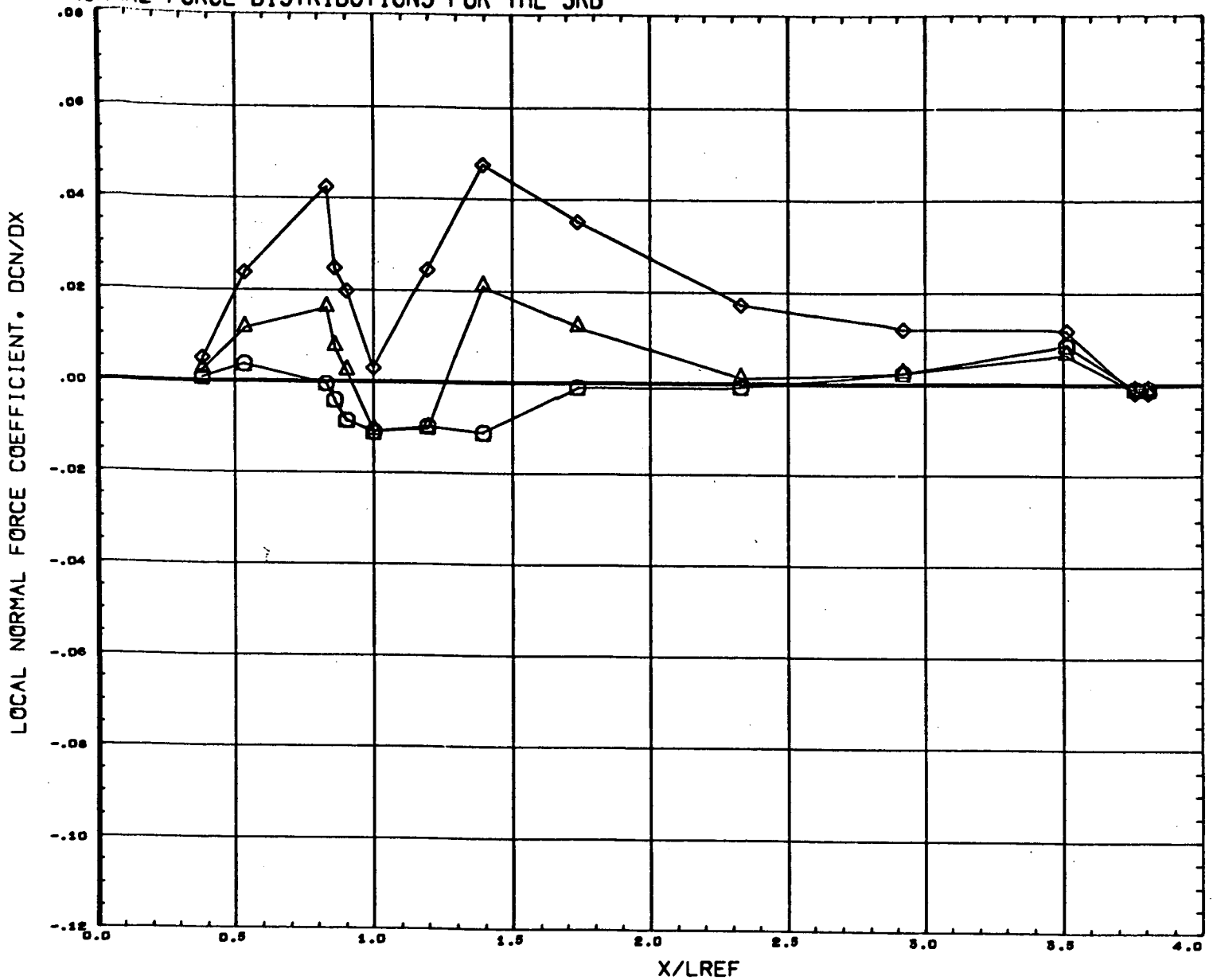


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000		0.000 SRBGAP 0.025
△	- 4.000		
◇	- 10.000		

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	88. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

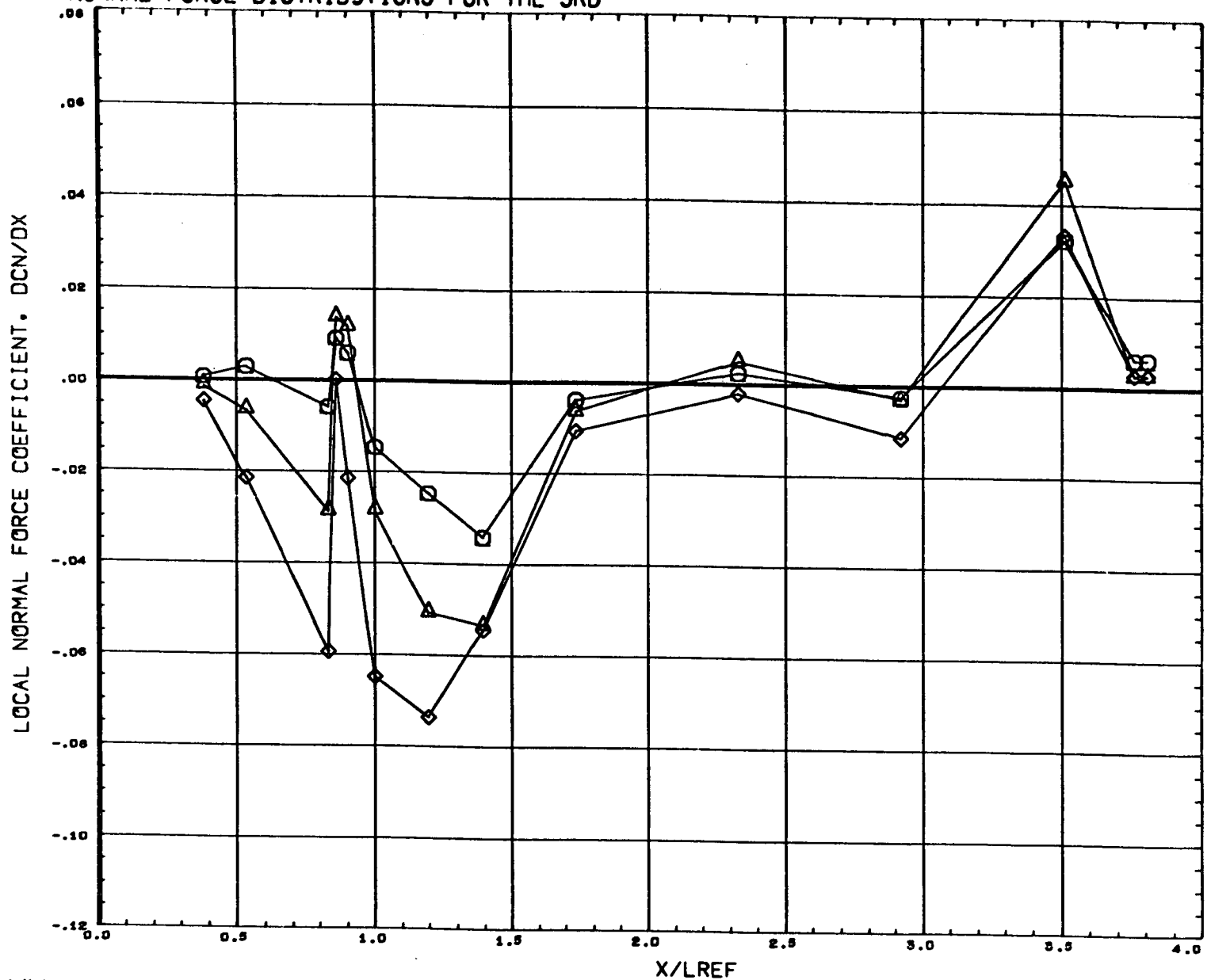


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	SRB GAP 0.025
△	4.000		
◇	10.000		

REFERENCE INFORMATION		
SRF	7.8800	89. IN.
LREF	2.0280	INCHES
SRF	4.4500	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE SRB



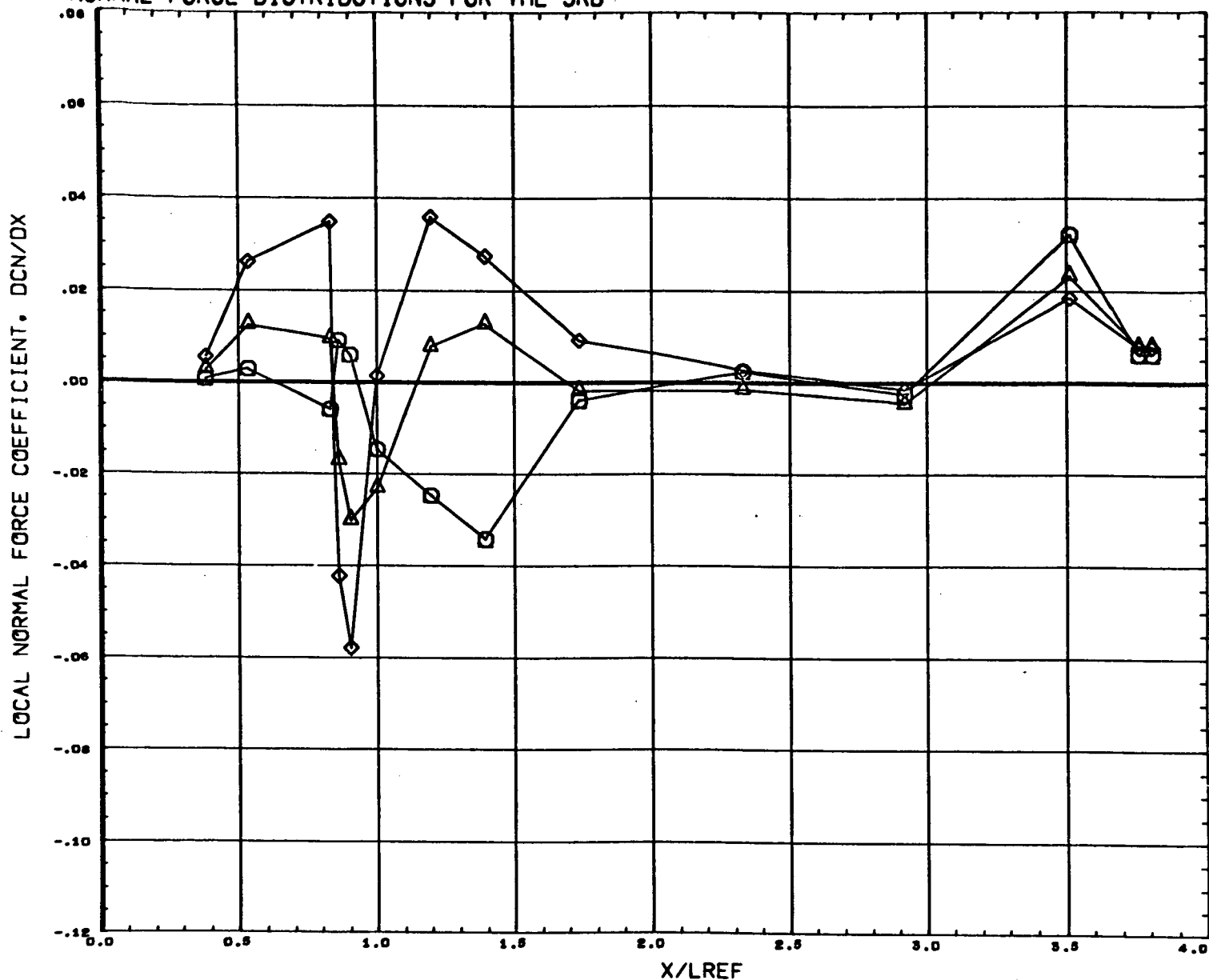
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000 ORBINC - 1.500
 △ - 4.000 SRBGAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .80

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

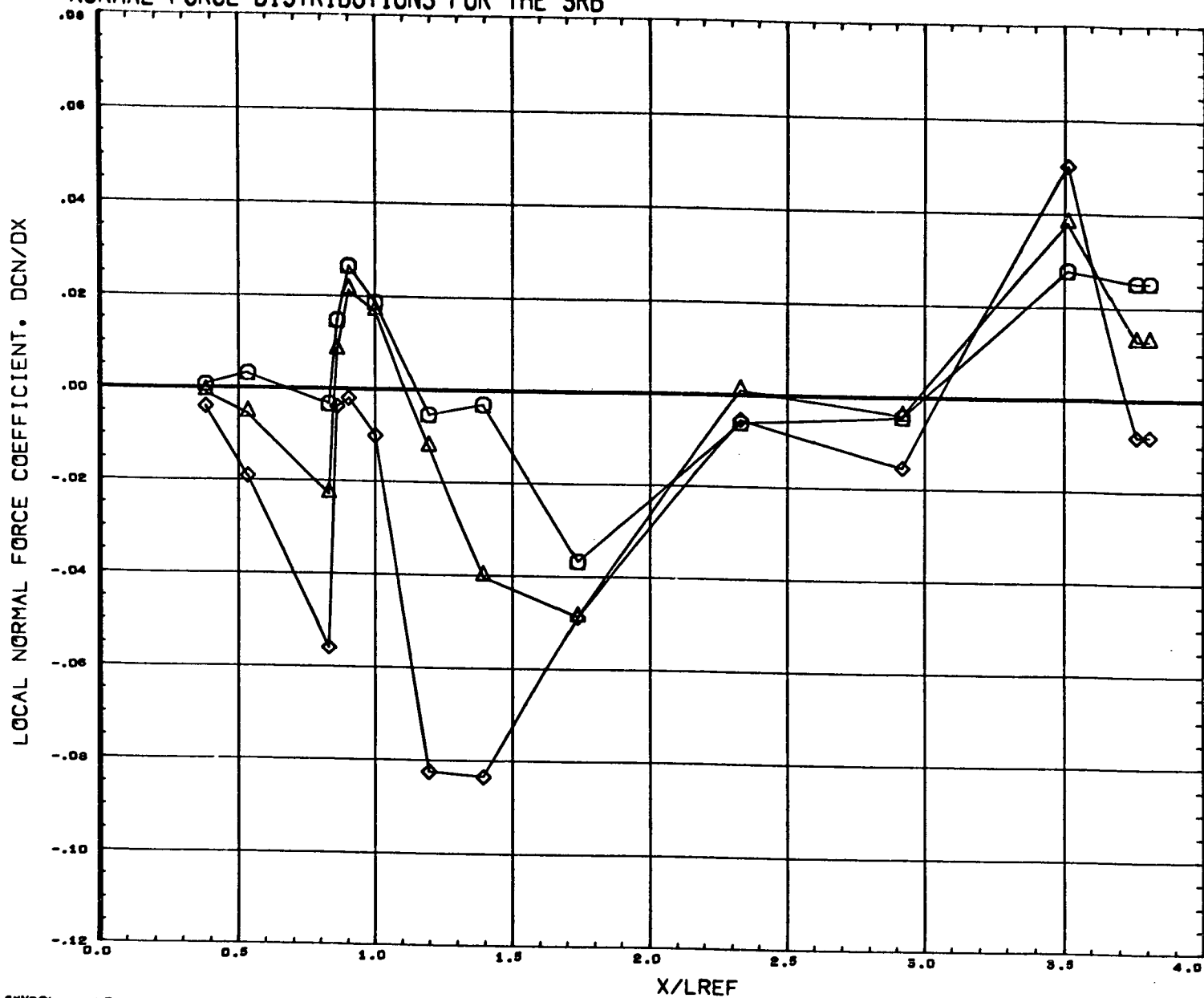


SYMBOL	ALPHA	PARAMETRIC VALUES	
○	0.000	BETA	0.000 ORBINC - 1.500
△	4.000	SRBCAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	80 IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .80

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

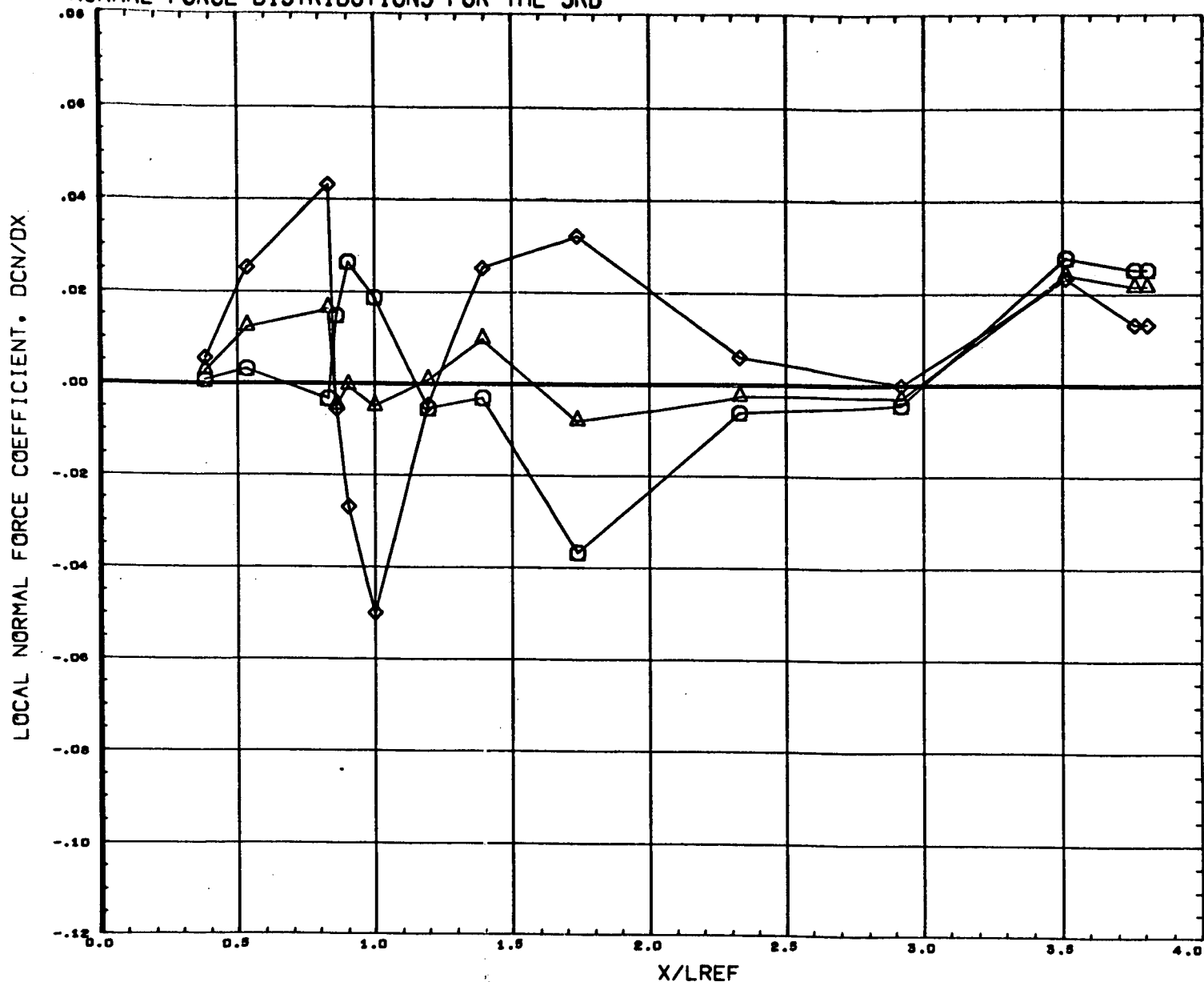


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ - 4.000 SRBCAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH .95

NORMAL FORCE DISTRIBUTIONS FOR THE SRB



SYMBOL ALPHA BETA PARAMETRIC VALUES ORBINC - 1.500

○ 0.000 0.000 0.025

△ 4.000 SRBCAP 0.025

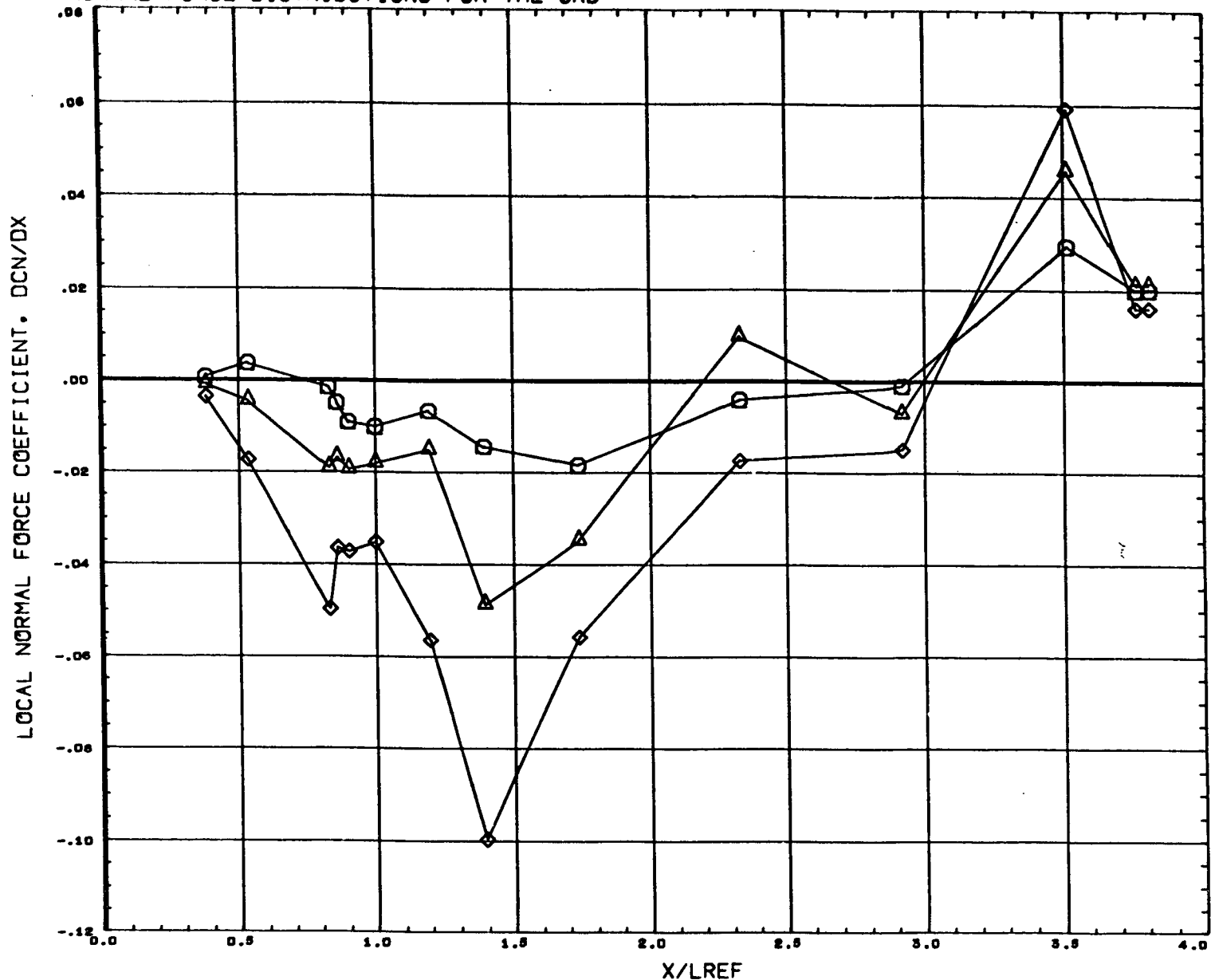
◇ 10.000

REFERENCE INFORMATION

SREF	7.8800	89. IN.
LREF	2.0260	INCHES
SRF	4.4600	INCHES
XHRP	4.2260	INCHES
YHRP	0.0000	INCHES
ZHRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

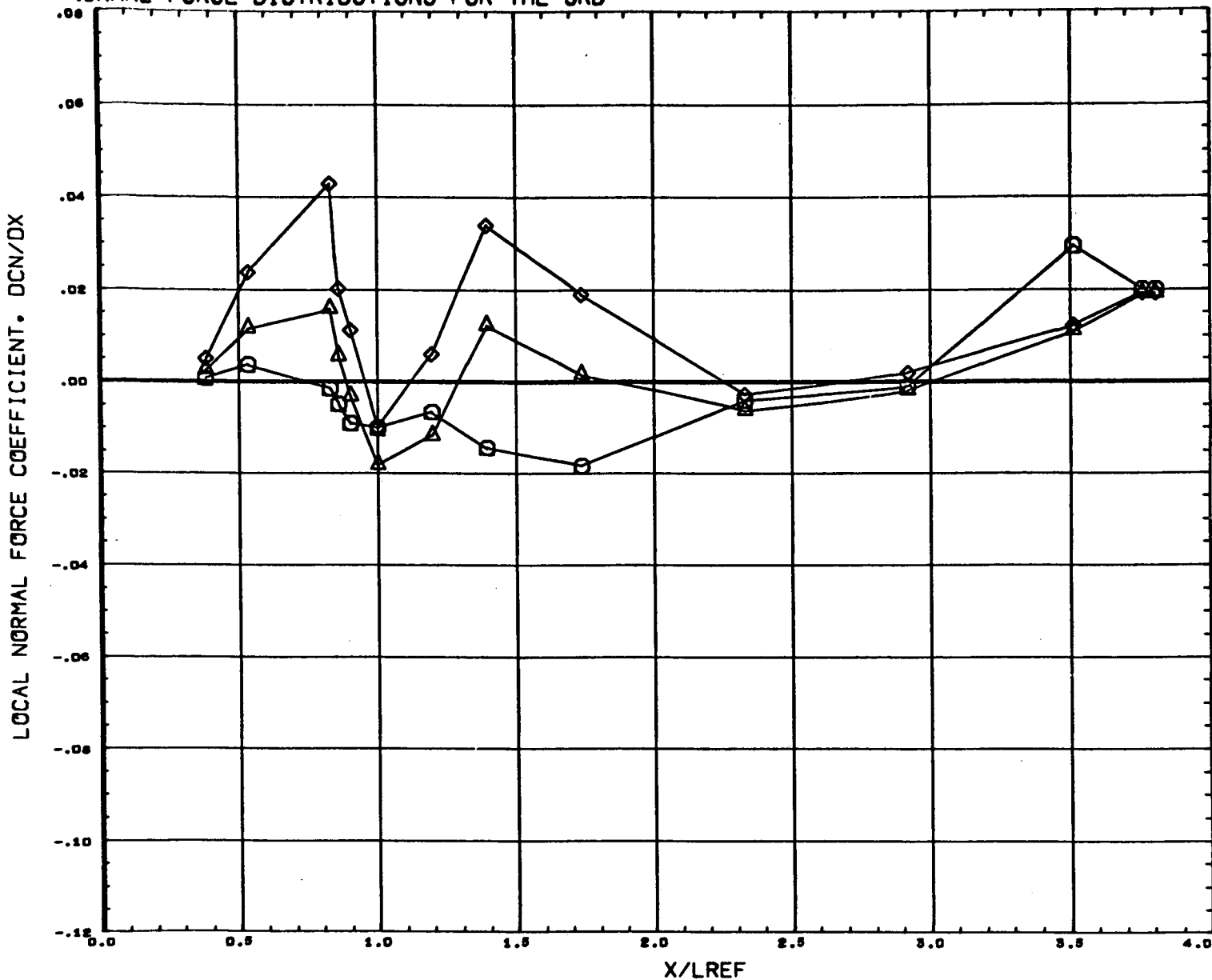


SYMBOL	ALPHA	PARAMETRIC VALUES	
□	0.000	BETA	0.000 ORBINC - 1.500
△	- 4.000	SRBGAP	0.025
◇	- 10.000		

REFERENCE INFORMATION		
SREF	7.8800	98. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

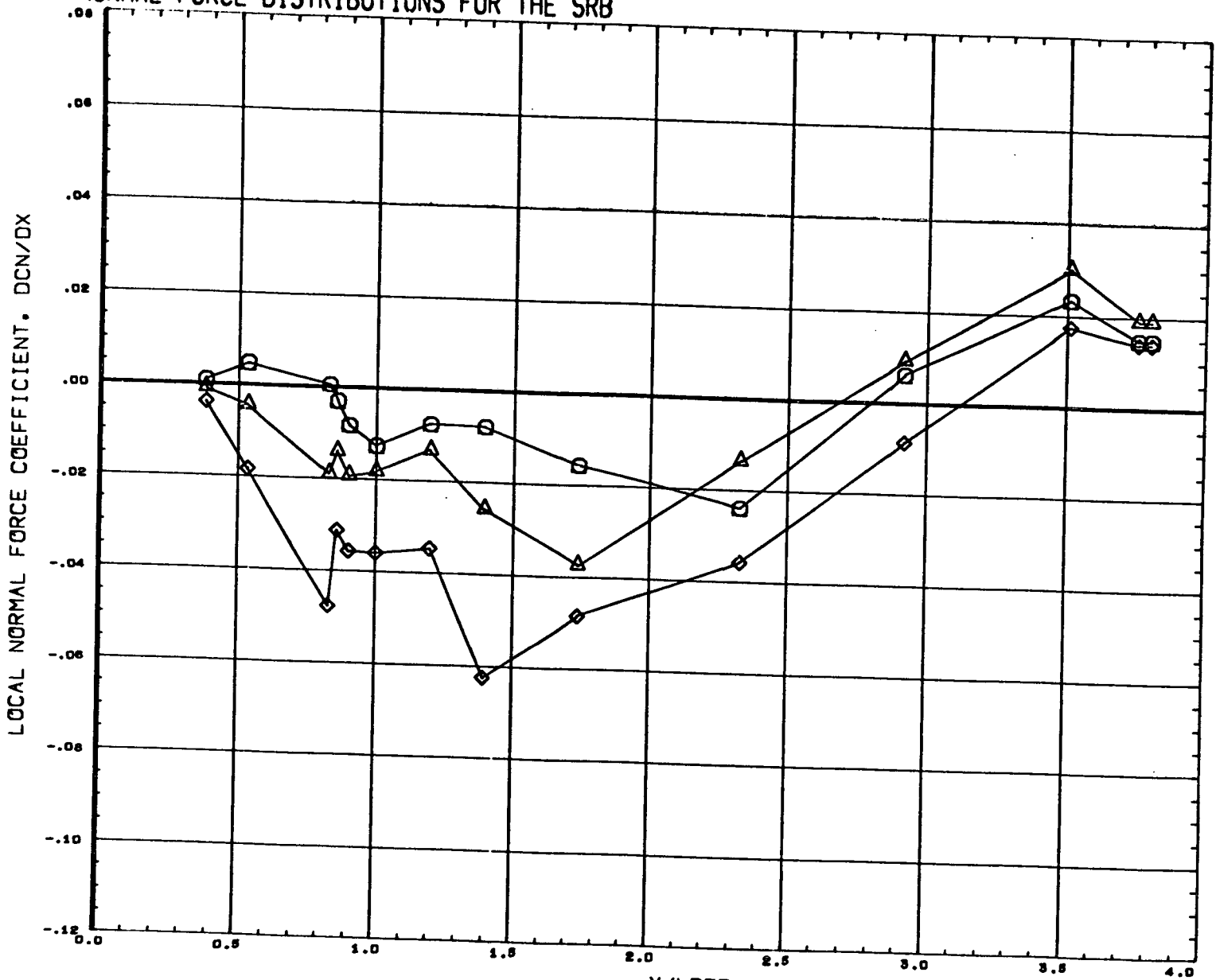


SYMBOL	ALPHA	PARAMETRIC VALUES	
○	0.000	BETA	0.000 ORBINC - 1.500
△	4.000	SRBCAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	89. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

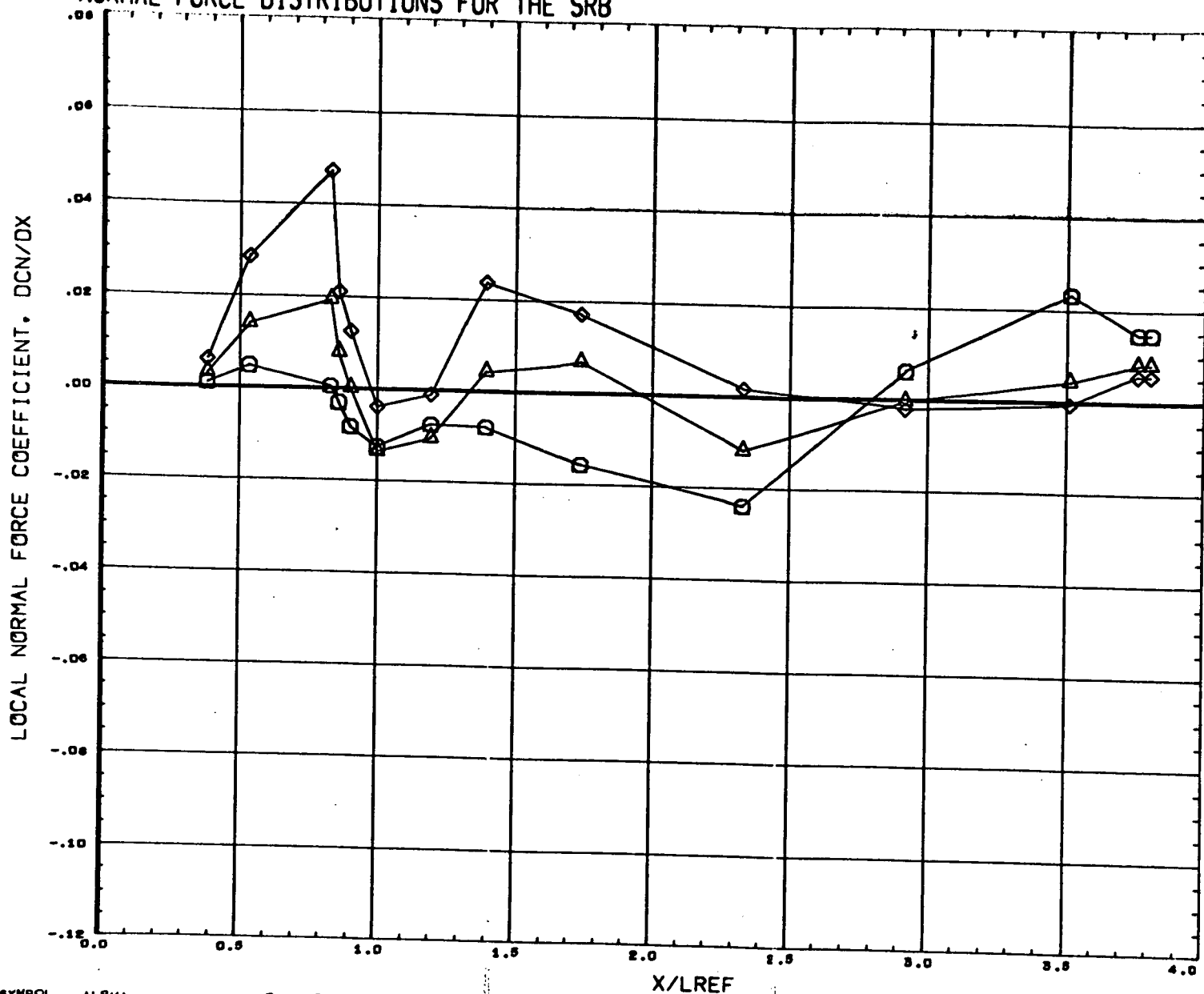


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.900
 △ - 4.000 SRBCAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION
 SREF 7.8800 39. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.46

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

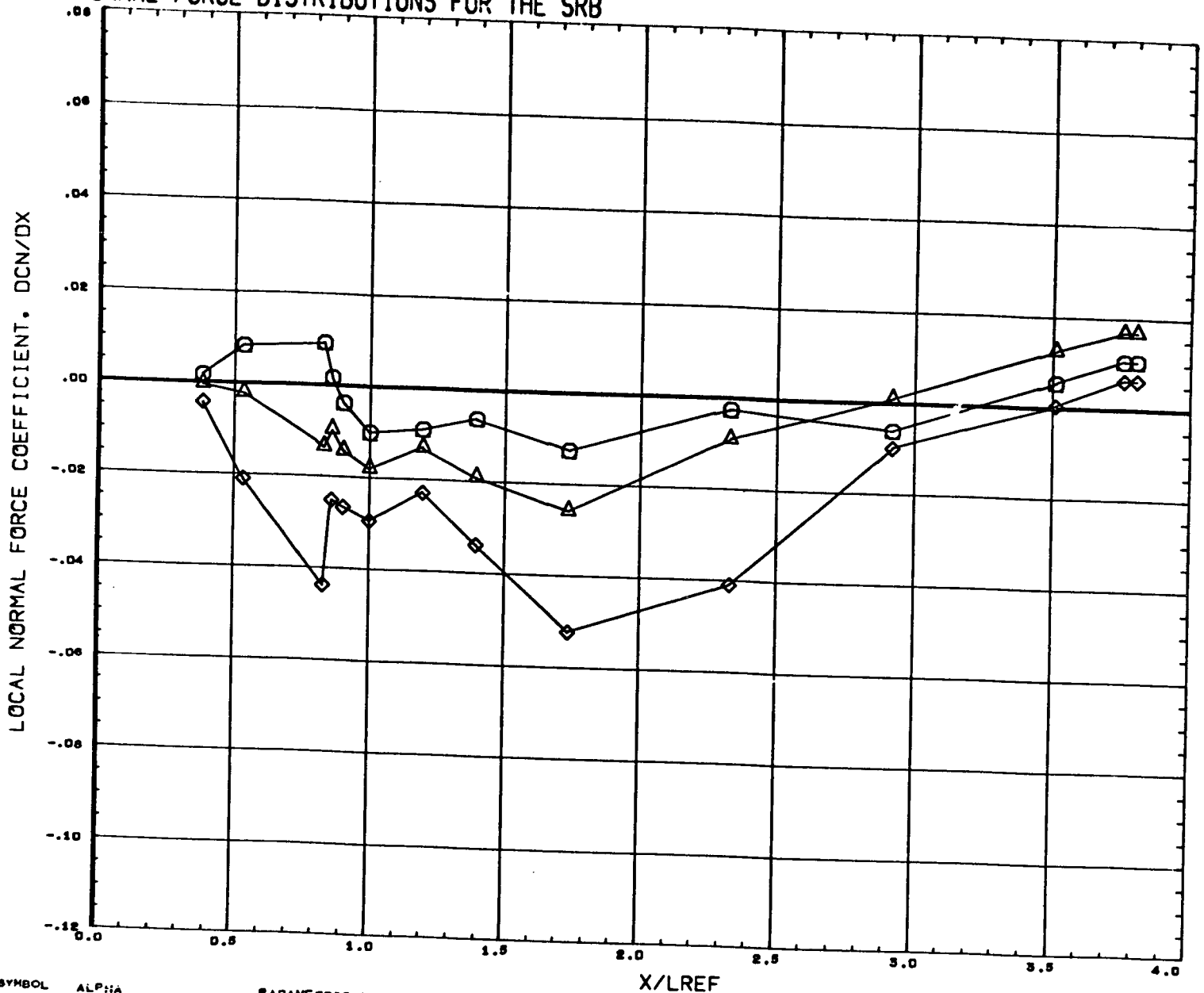


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
◇	0.000	0.000	ORBINC	- 1.000
△	4.000	SRBCAP	0.025	
□	10.000			

MACH 1.46

REFERENCE INFORMATION		
SREF	7.8800	89.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XHRP	4.2260	INCHES
YHRP	0.0000	INCHES
ZHRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

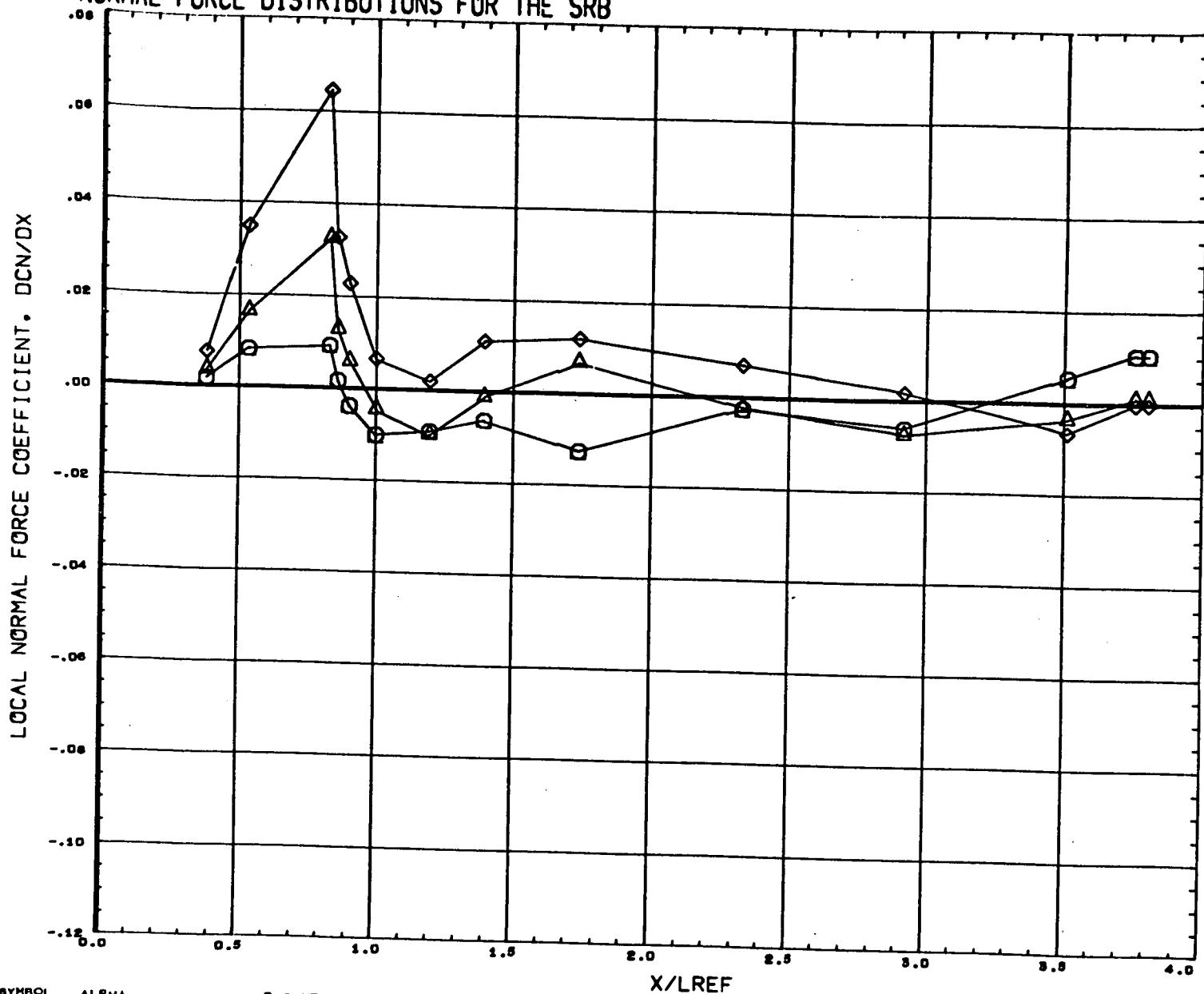


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ 4.000 0.025
 ◇ 10.000

REFERENCE INFORMATION
 SREF 7.8800 90.1N.
 LREF 2.0260 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.96

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

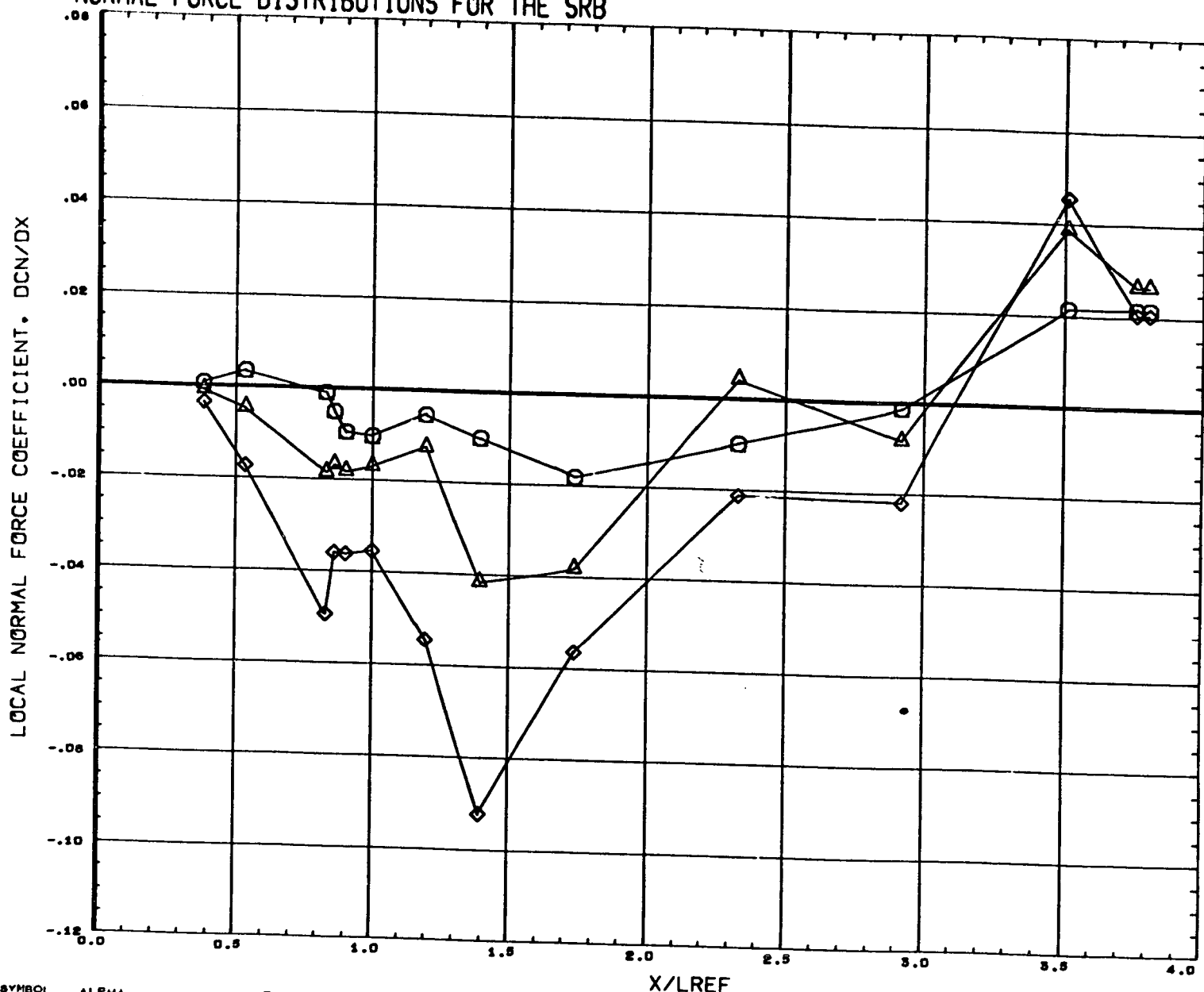


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.96

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

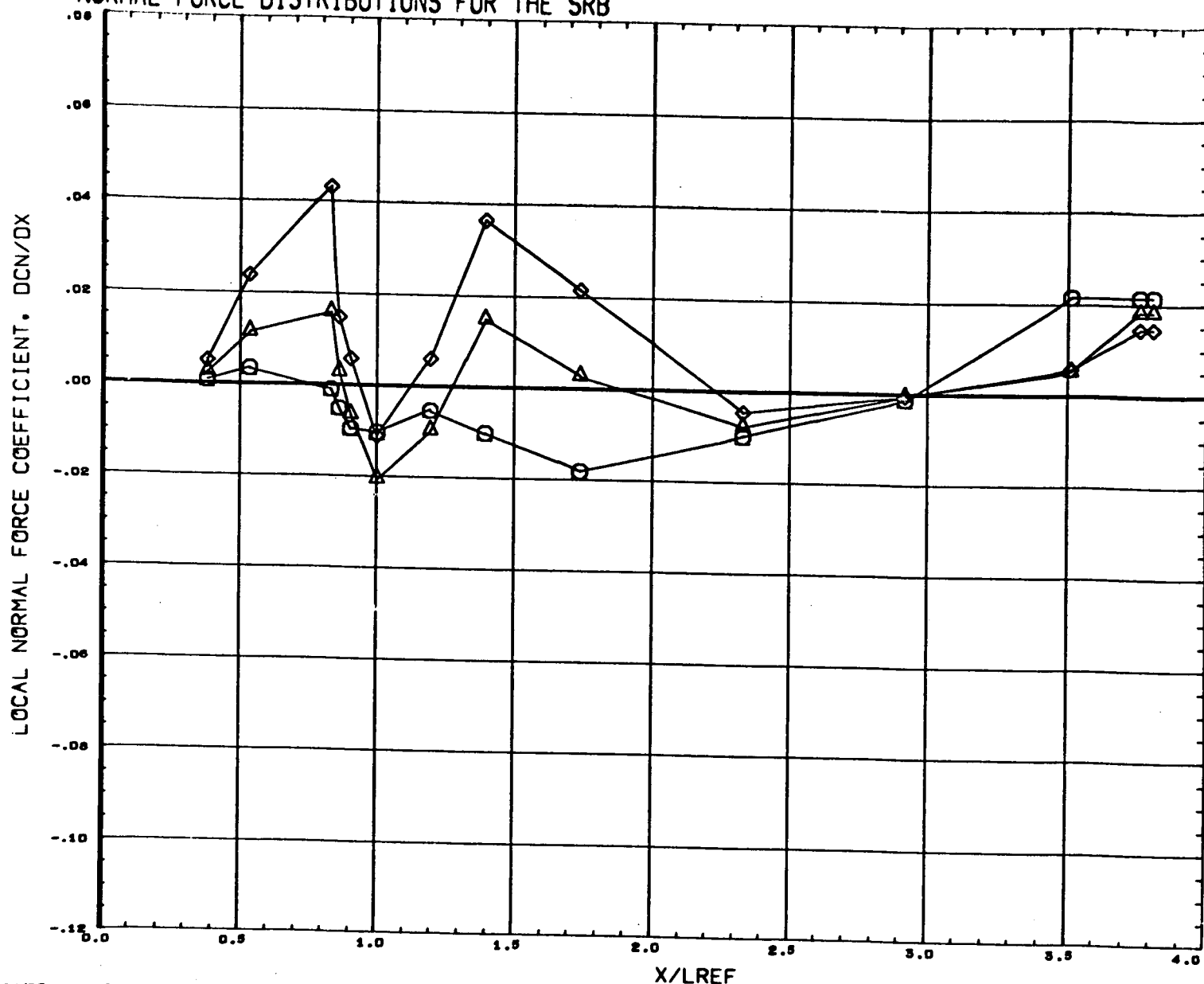


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	ORBINC	
○	0.000	0.000	0.000	0.000	
△	- 4.000	SRBGAP	0.025		
◇	- 10.000				

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	90. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

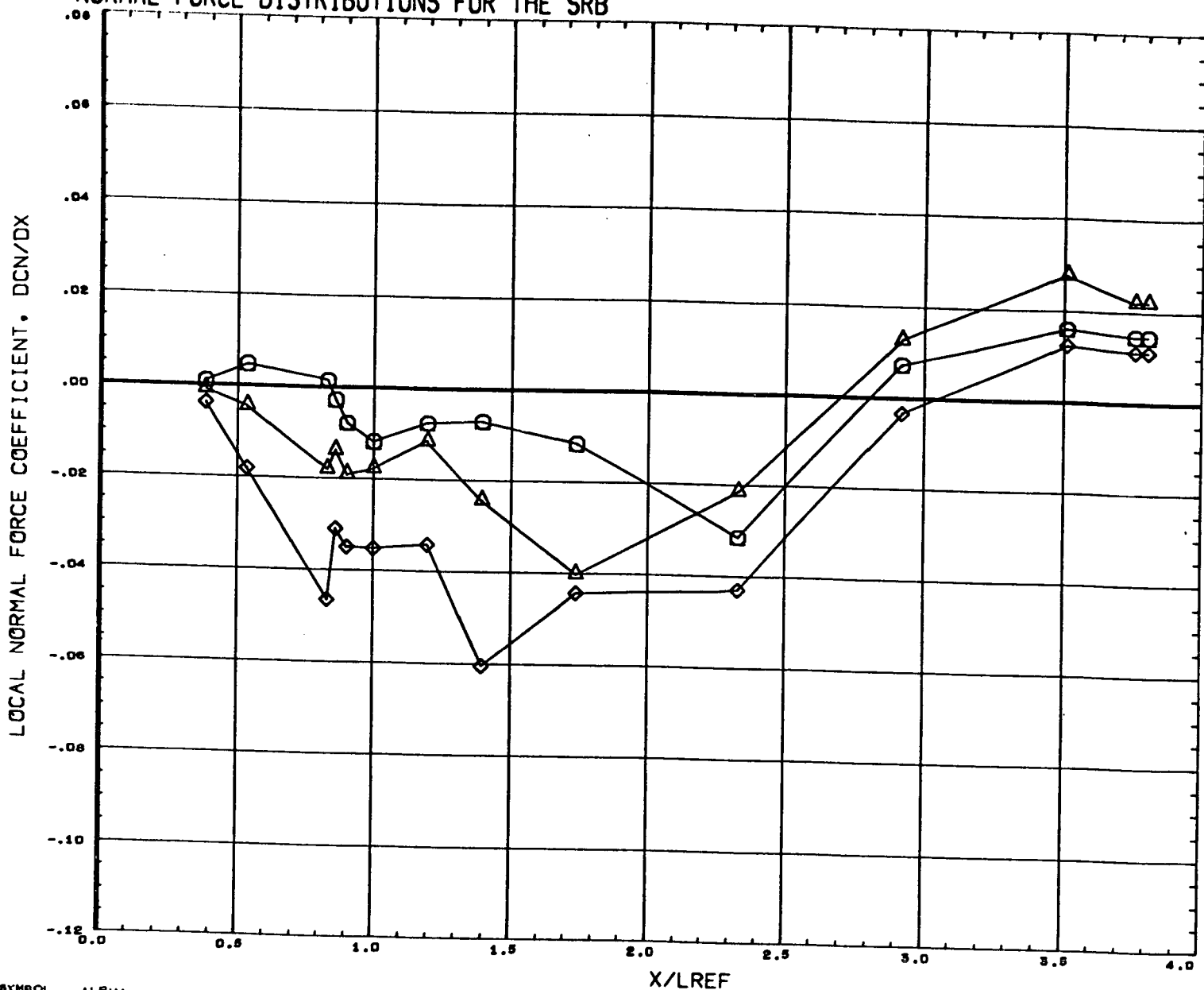


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	0.000
△	4.000	SRBCAP	0.025	
◇	10.000			

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XHRP	4.2260	INCHES
YHRP	0.0000	INCHES
ZHRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

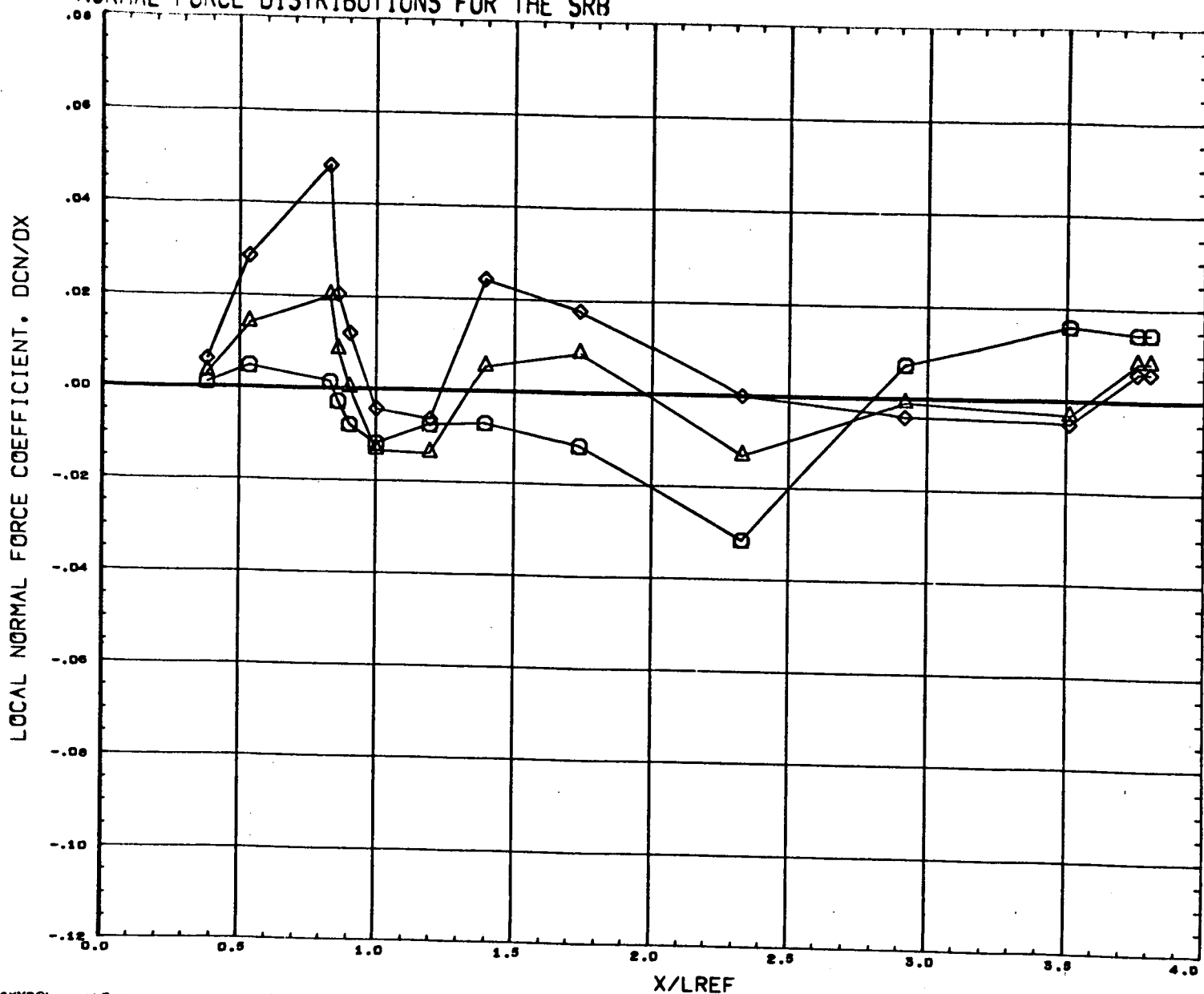


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000 ORBINC 0.000
 △ 4.000 SRBGAP 0.025
 ◇ 10.000

REFERENCE INFORMATION
 SREF 7.8800 50. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.46

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

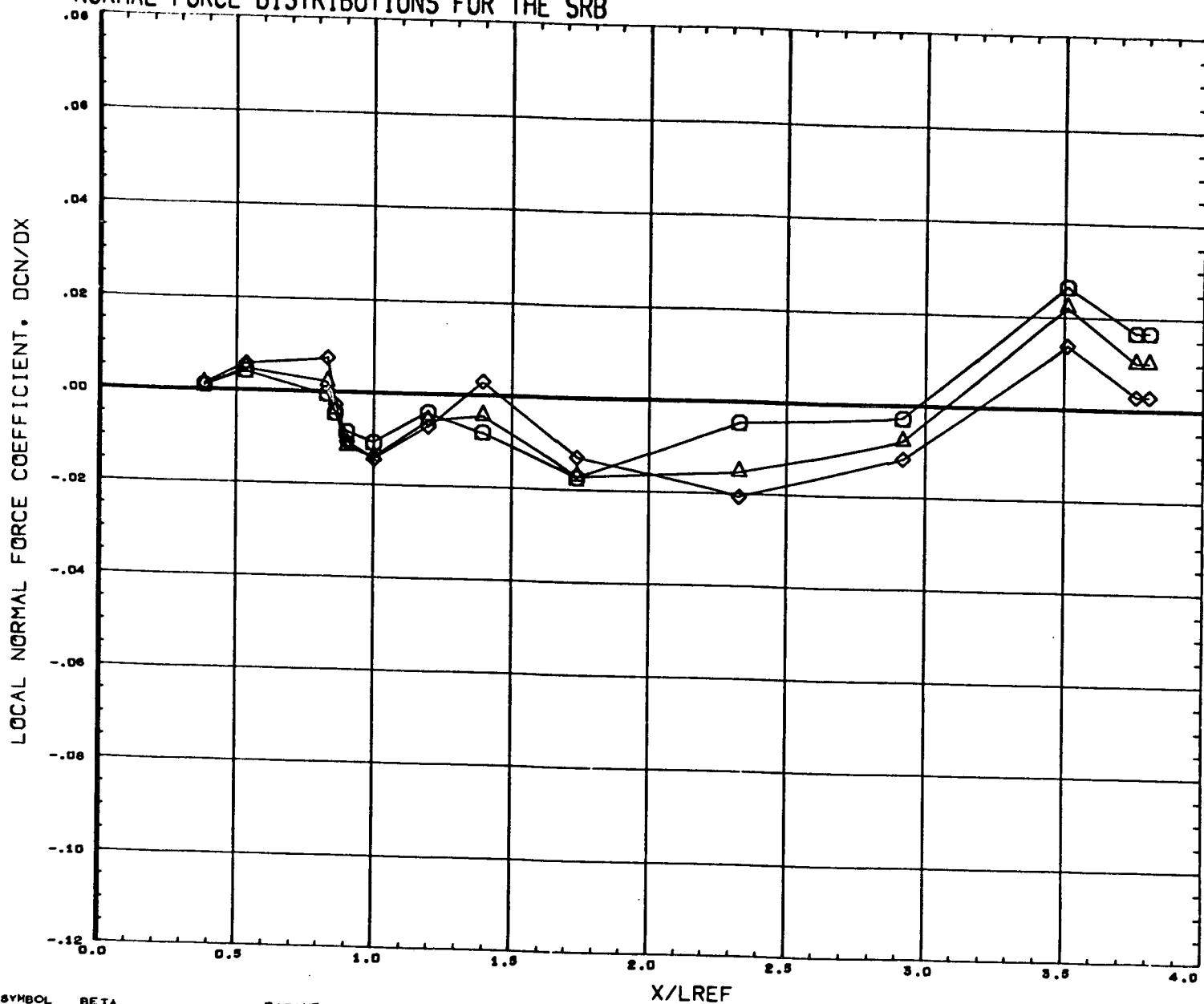


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	0.000
△	4.000	SRBGAP	0.025	
◇	10.000			

MACH 1.46

REFERENCE INFORMATION		
SREF	7.6800	89. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB



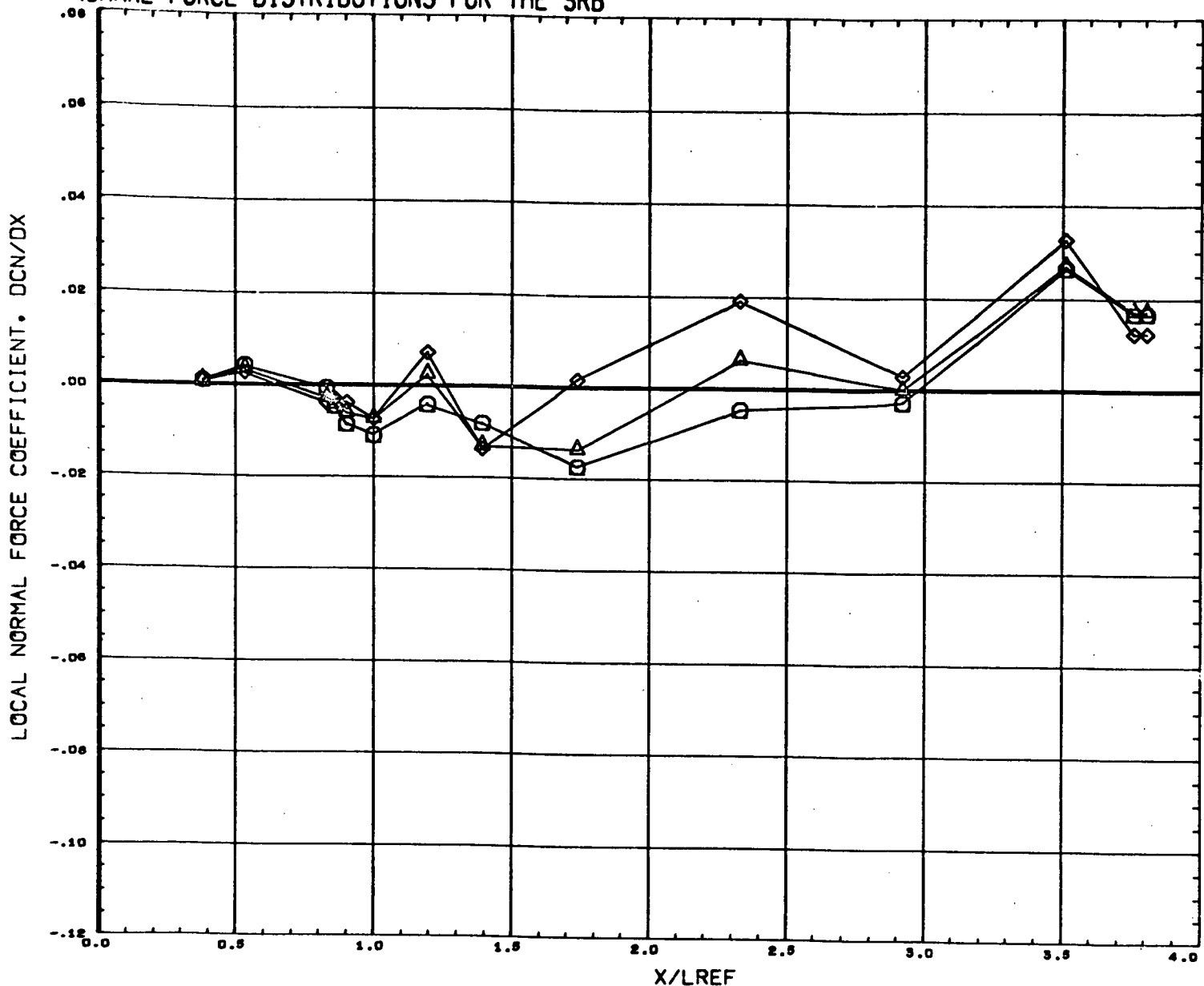
SYMBOL BETA ALPHA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ - 4.000 SRBGAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
VMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE SRB



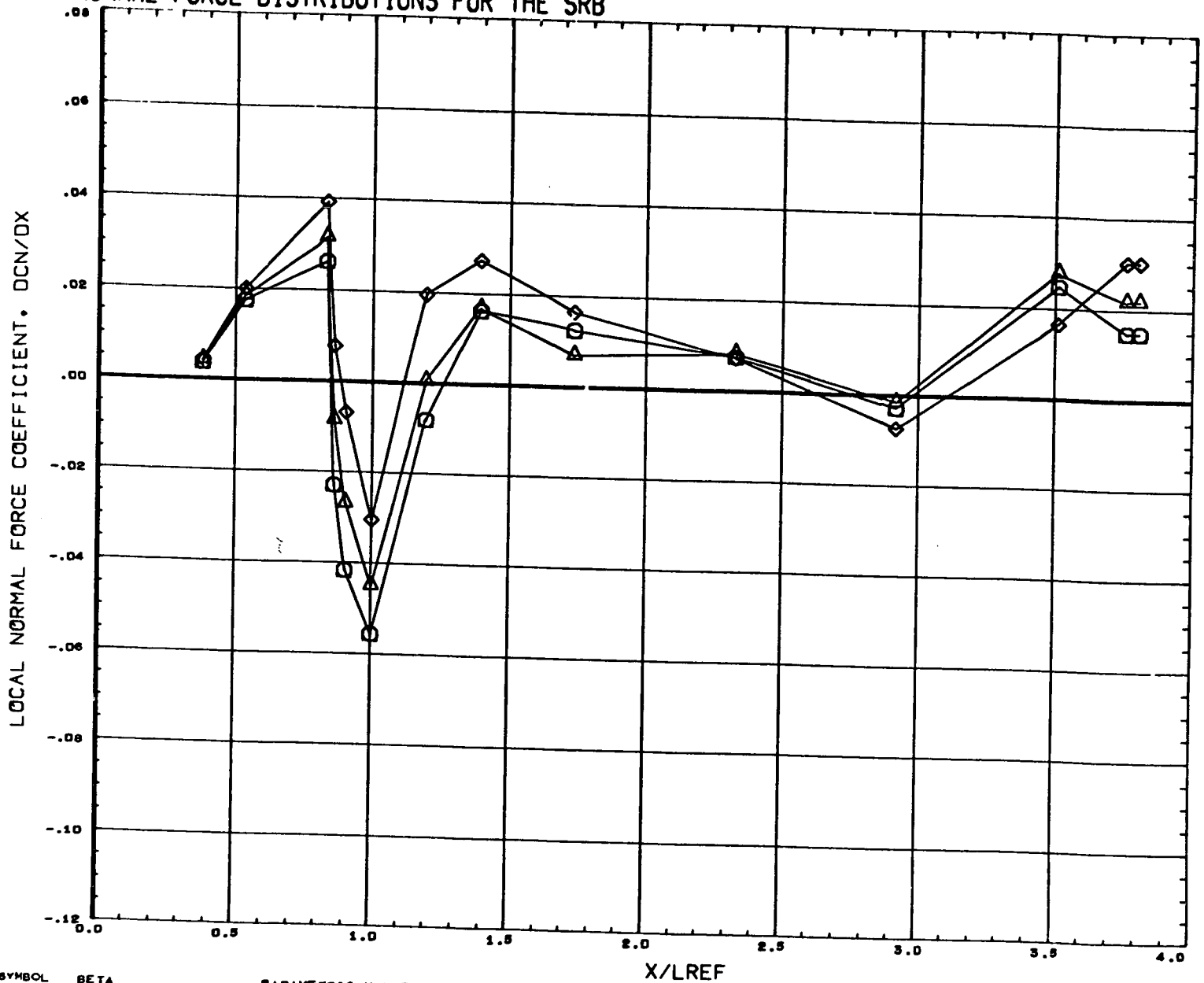
SYMBOL BETA ALPHA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ 4.000 SRBCAP 0.025
 ◇ 10.000

MACH 1.20

REFERENCE INFORMATION

SREF	7.8800	89. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB



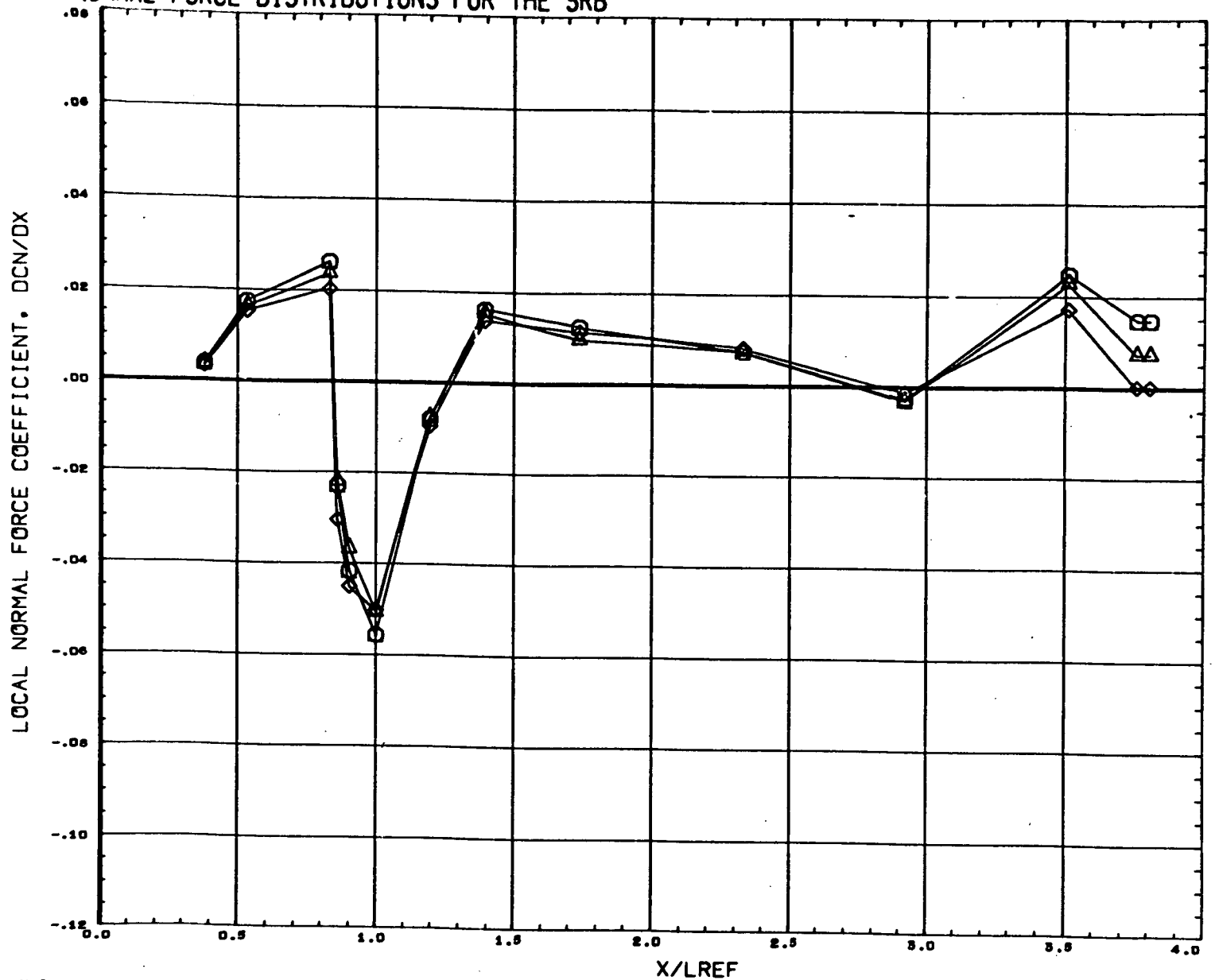
SYMBOL BETA
 ○ 0.000
 △ 4.000
 ◇ 10.000

PARAMETRIC VALUES
 ALPHA 6.000
 SRBCAP 0.025
 ORBINC - 1.500

MACH .95

REFERENCE INFORMATION
 SREF 7.8800 99.1N.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

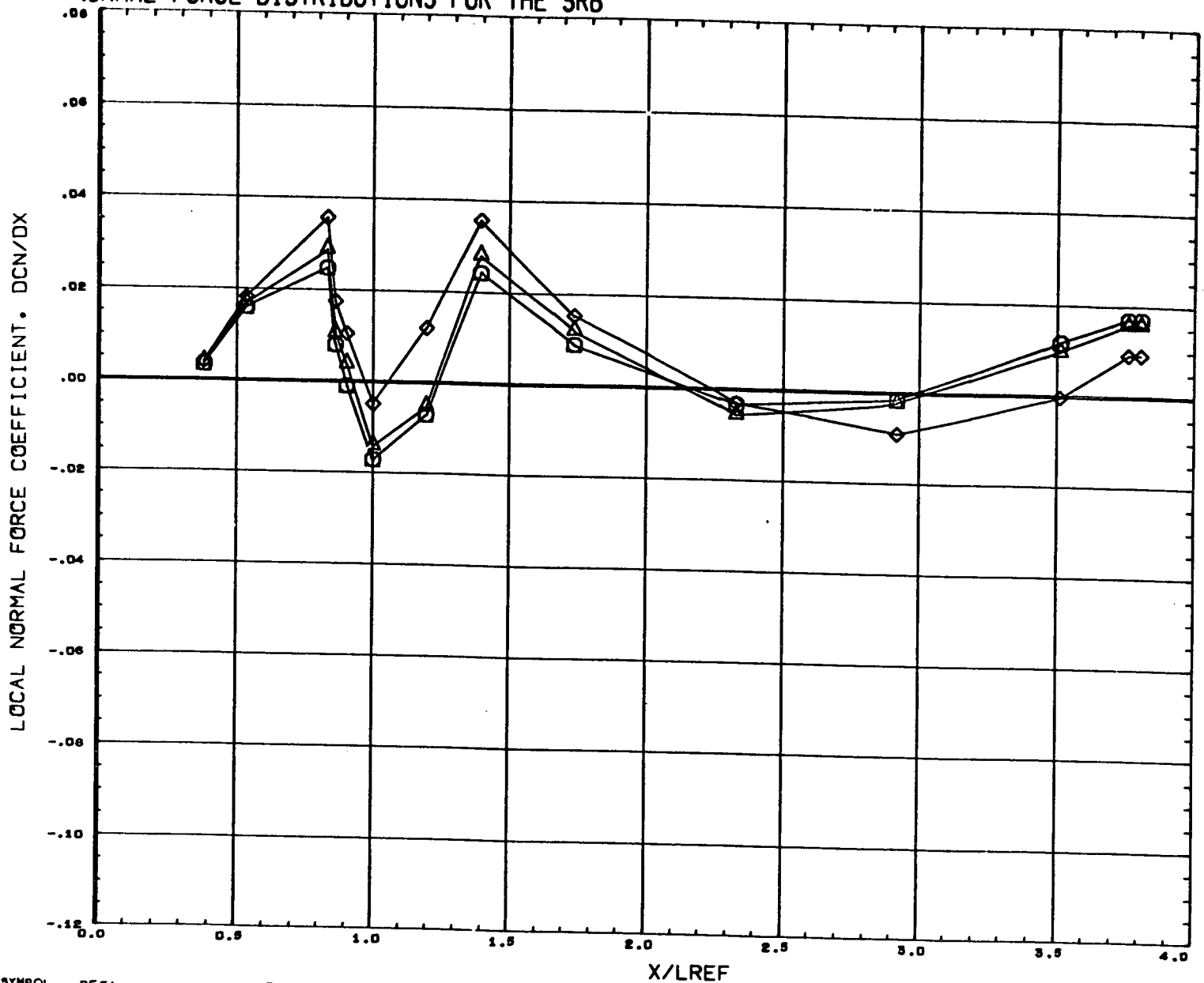


SYMBOL	BETA	ALPHA	PARAMETRIC VALUES
○	0.000	6.000	ORBINC - 1.500
△	4.000	SRBCAP	0.025
◇	10.000		

MACH .95

REFERENCE INFORMATION		
SREF	7.8800	96. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

NORMAL FORCE DISTRIBUTIONS FOR THE SRB



SYMBOL BETA ALPHA PARAMETRIC VALUES
 ○ 0.000 6.000 ORBINC - 1.500
 △ - 4.000 SRBGAP 0.025
 ◇ - 10.000

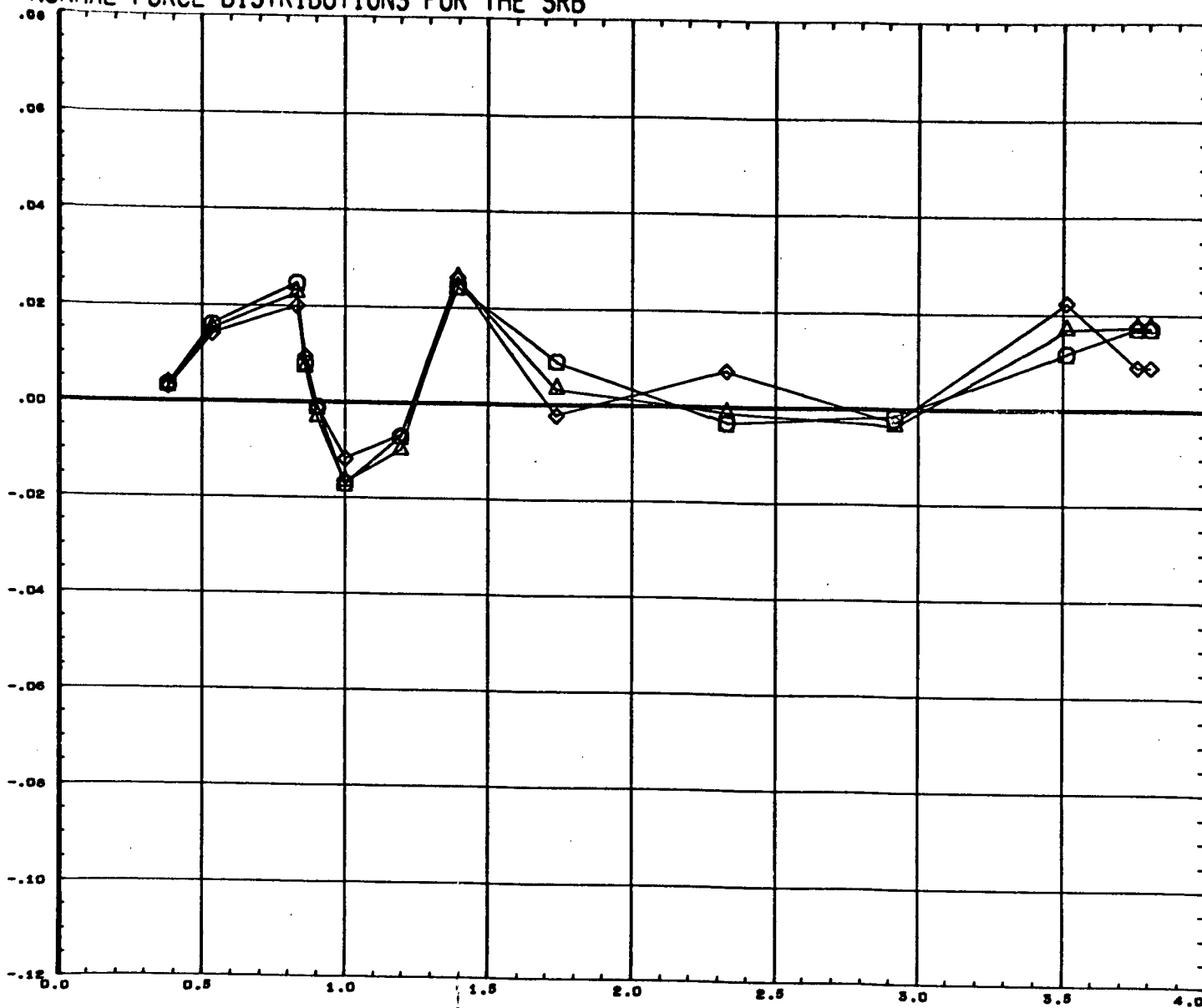
REFERENCE INFORMATION

SREF	7.8800	30. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

NORMAL FORCE DISTRIBUTIONS FOR THE SRB

LOCAL NORMAL FORCE COEFFICIENT, DCN/DX



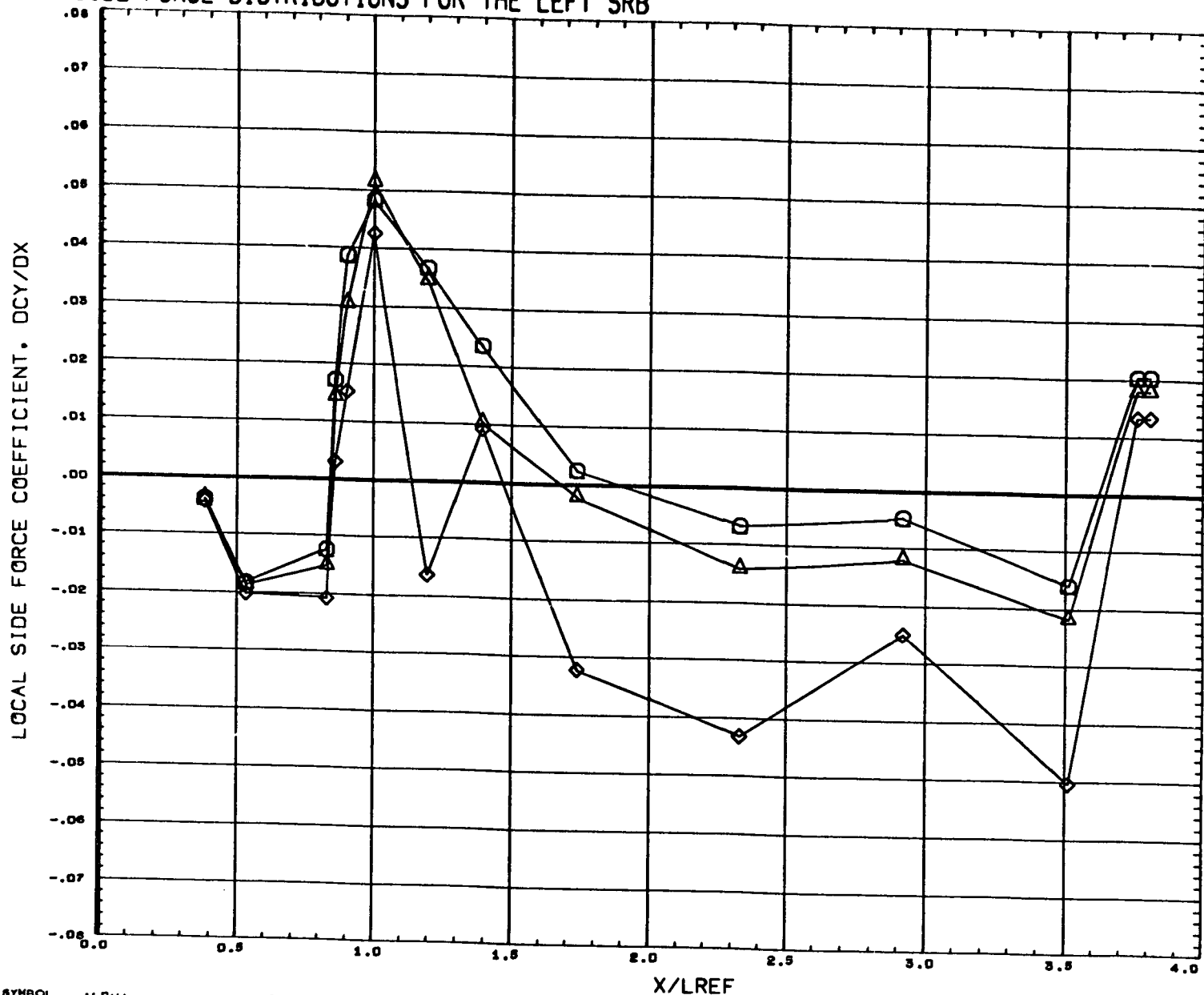
SYMBOL	BETA	ALPHA	PARAMETRIC VALUES
○	0.000	6.000	ORBINC - 1,500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION

SREF	7.6600	80. IN.
LREF	2.0250	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

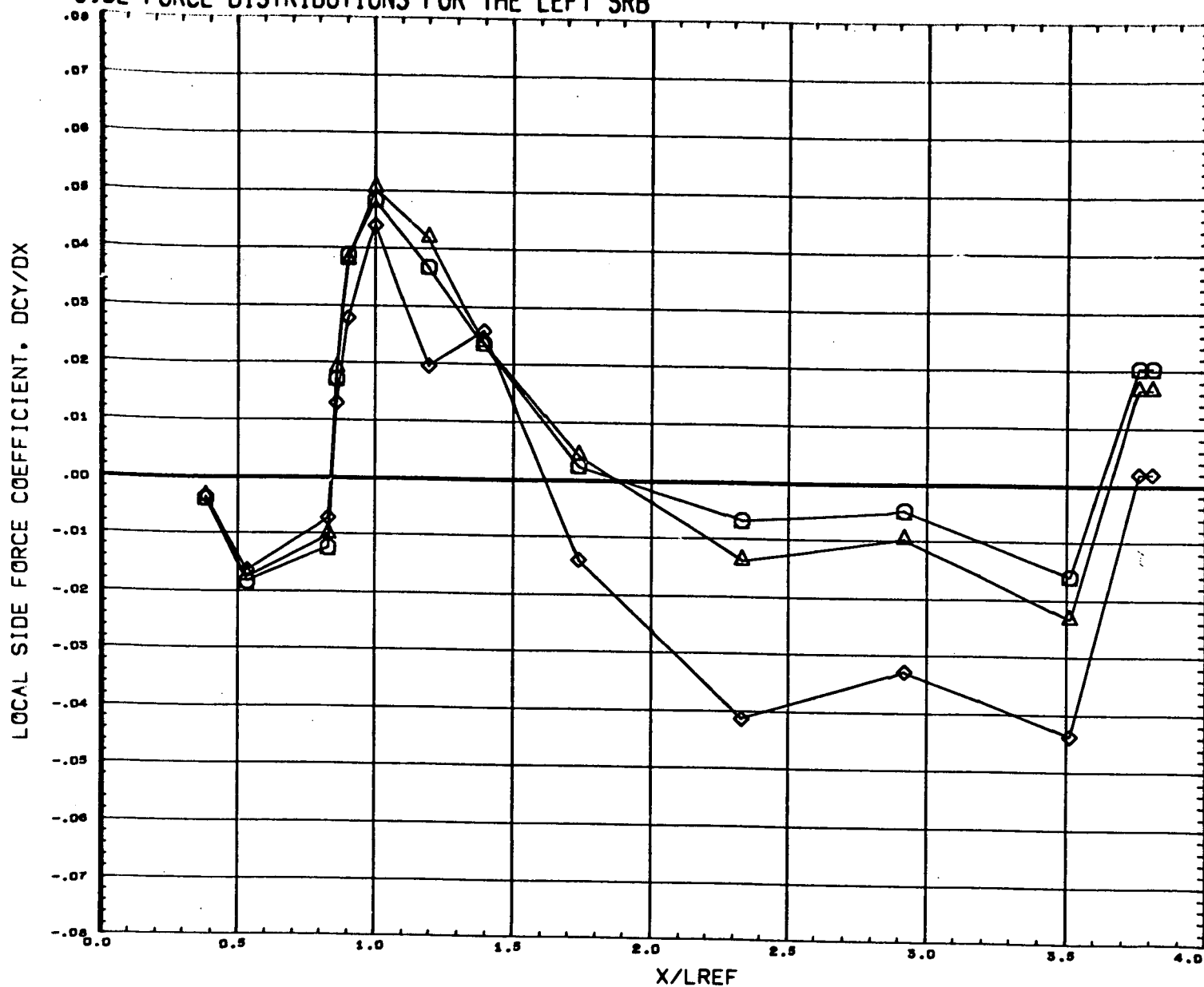


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 SRBGAP 0.025
 △ - 4.000
 ◇ -10.000

REFERENCE INFORMATION
 SREF 7.8800 80 IN.
 LREF 2.0280 INCHES
 BREF 4.4800 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

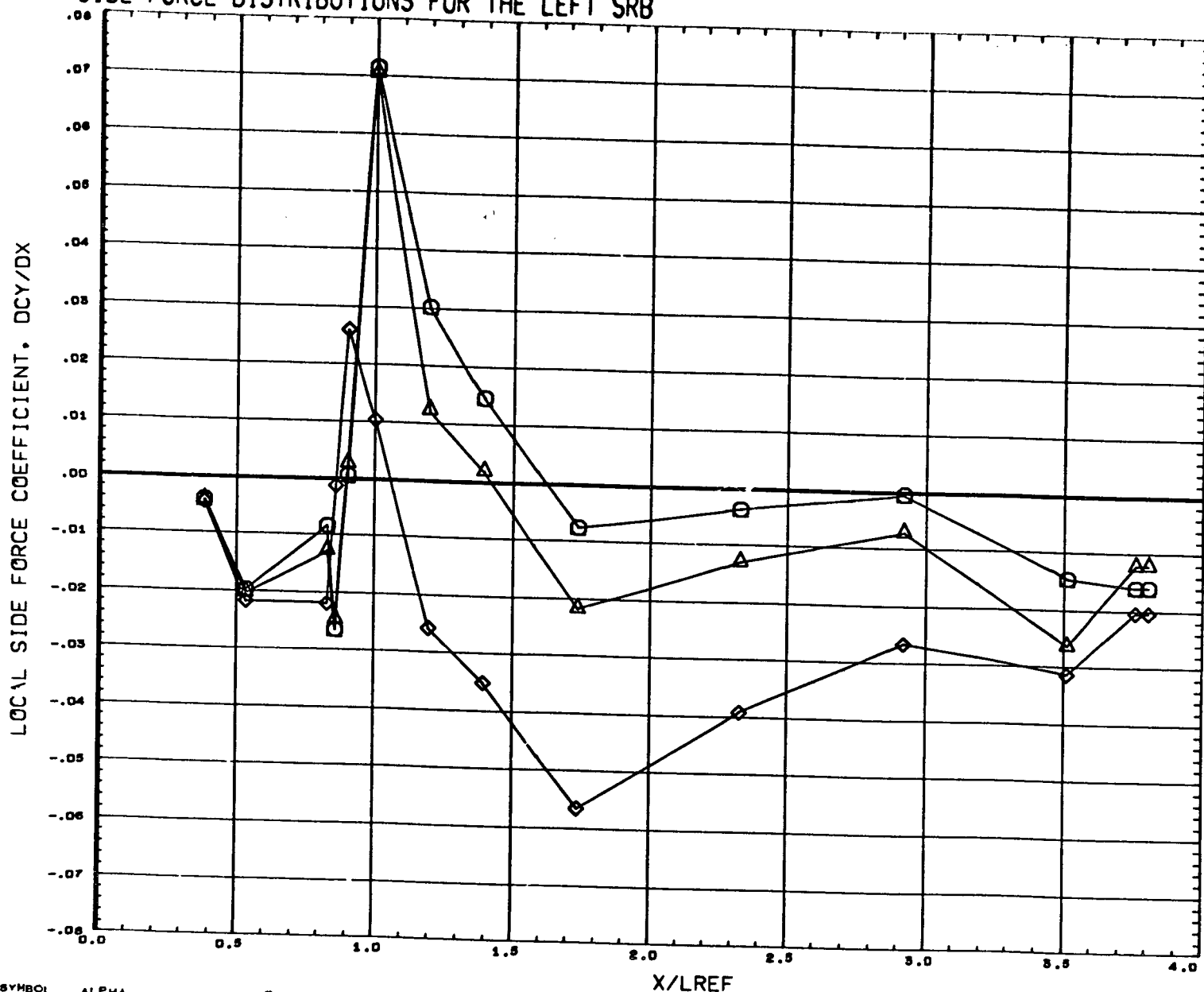


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	SRBCAP
○	0.000		0.000	0.025
△	4.000			
◇	10.000			

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	39. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

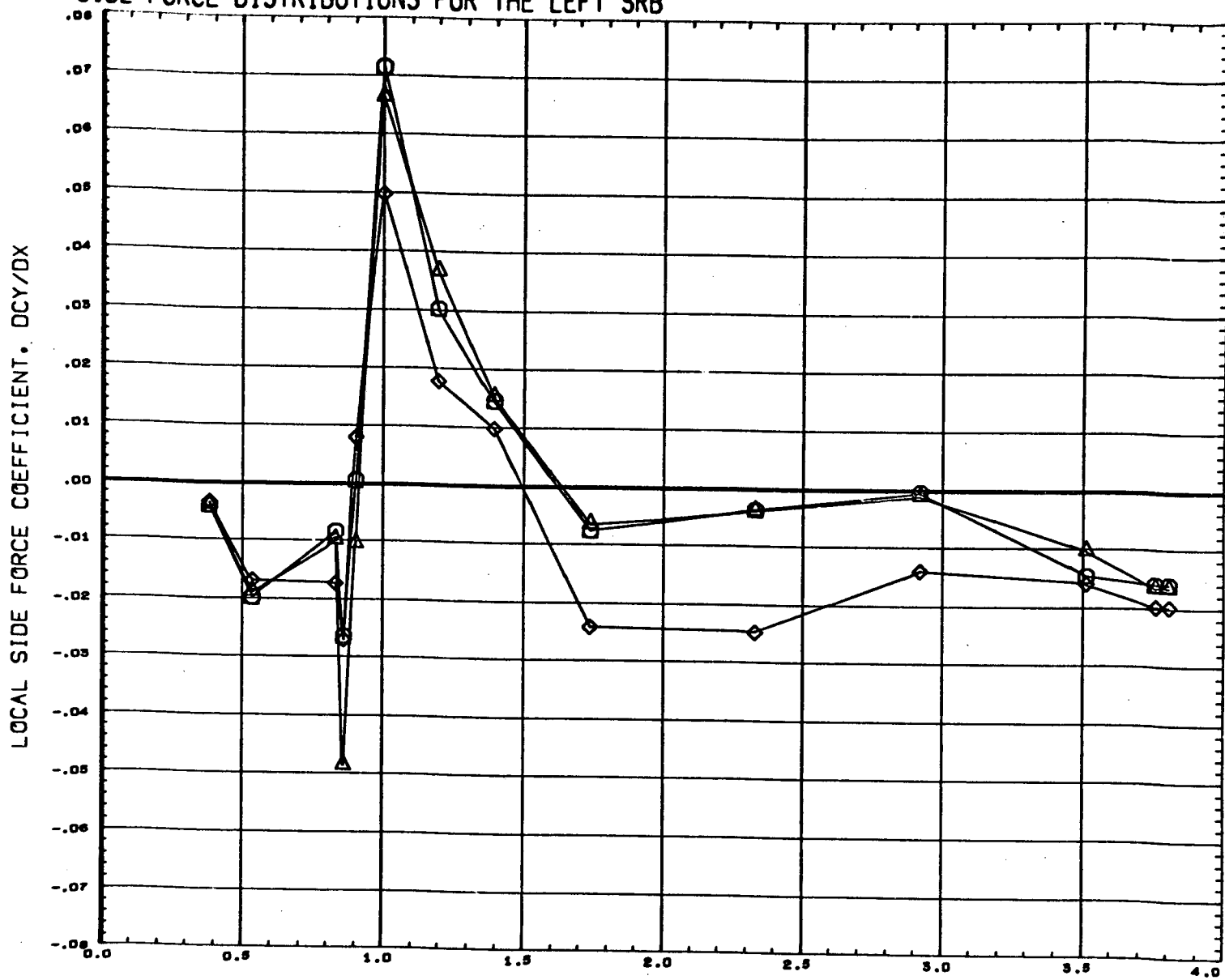


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.6800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .80

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

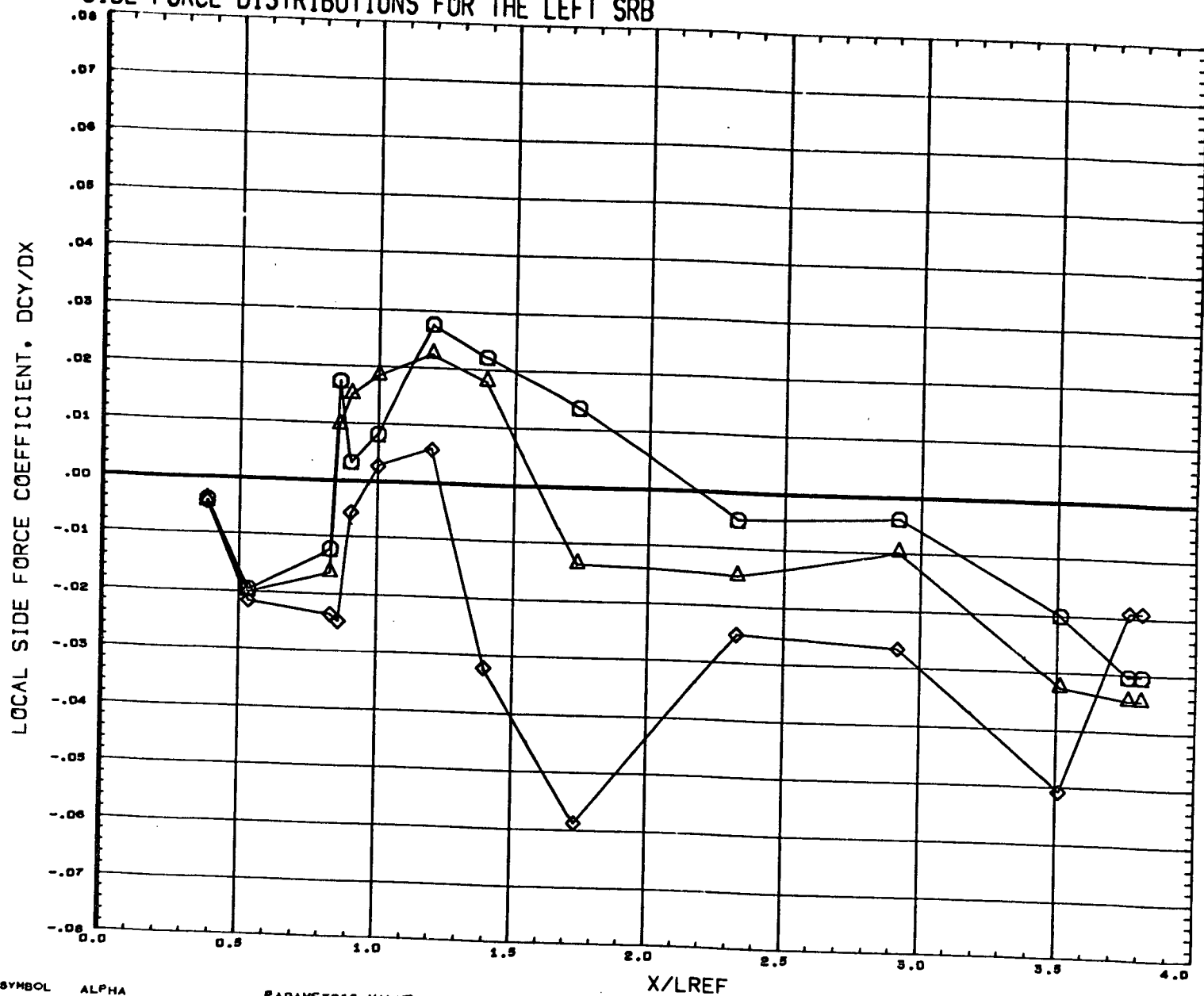


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	- 1.500
△	4.000	SRBCAP	0.025	
◇	10.000			

MACH .80

REFERENCE INFORMATION		
SREF	7.0800	59. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB



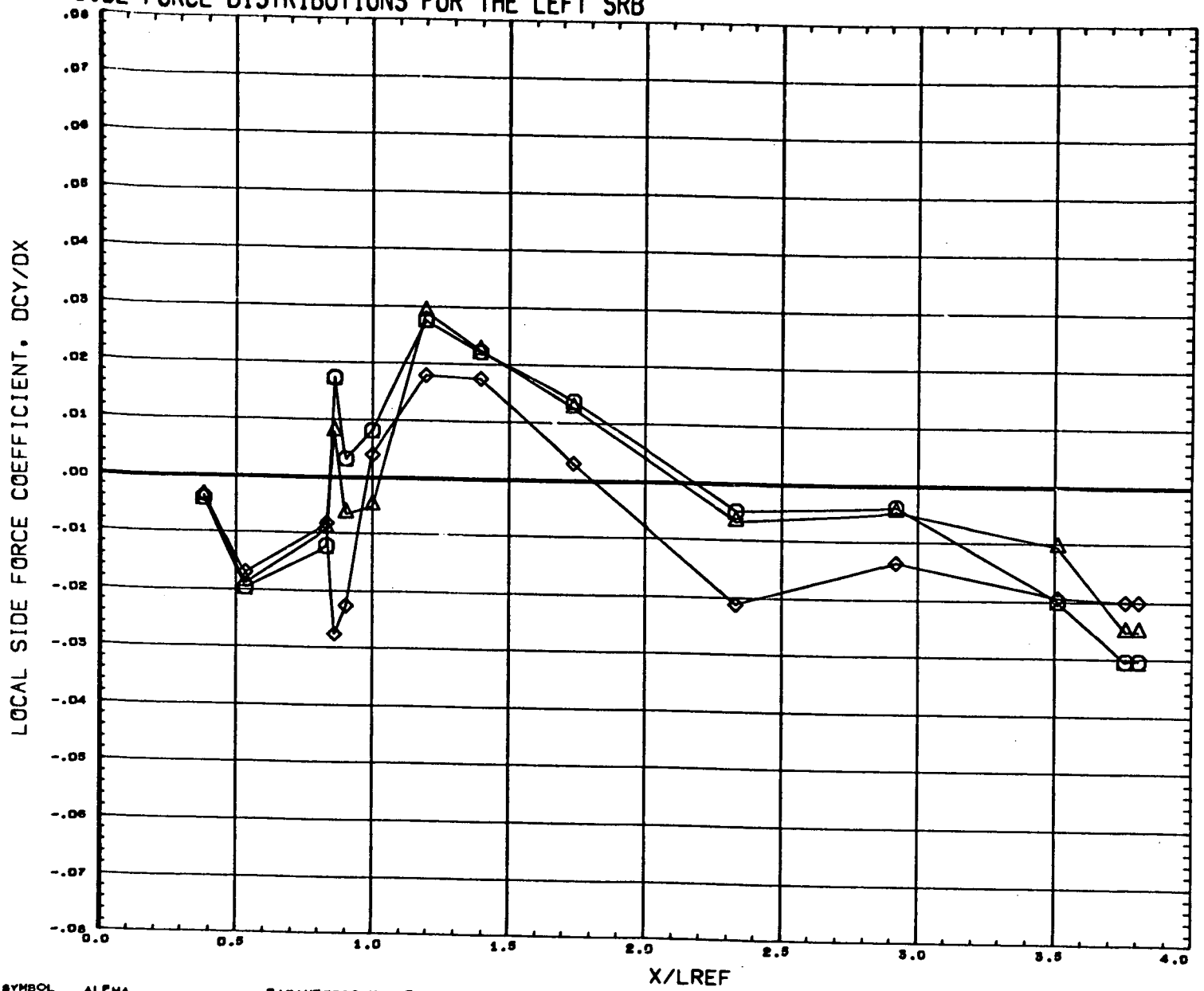
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000 ORBINC - 1.500
 △ - 4.000 SRBCAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION

SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

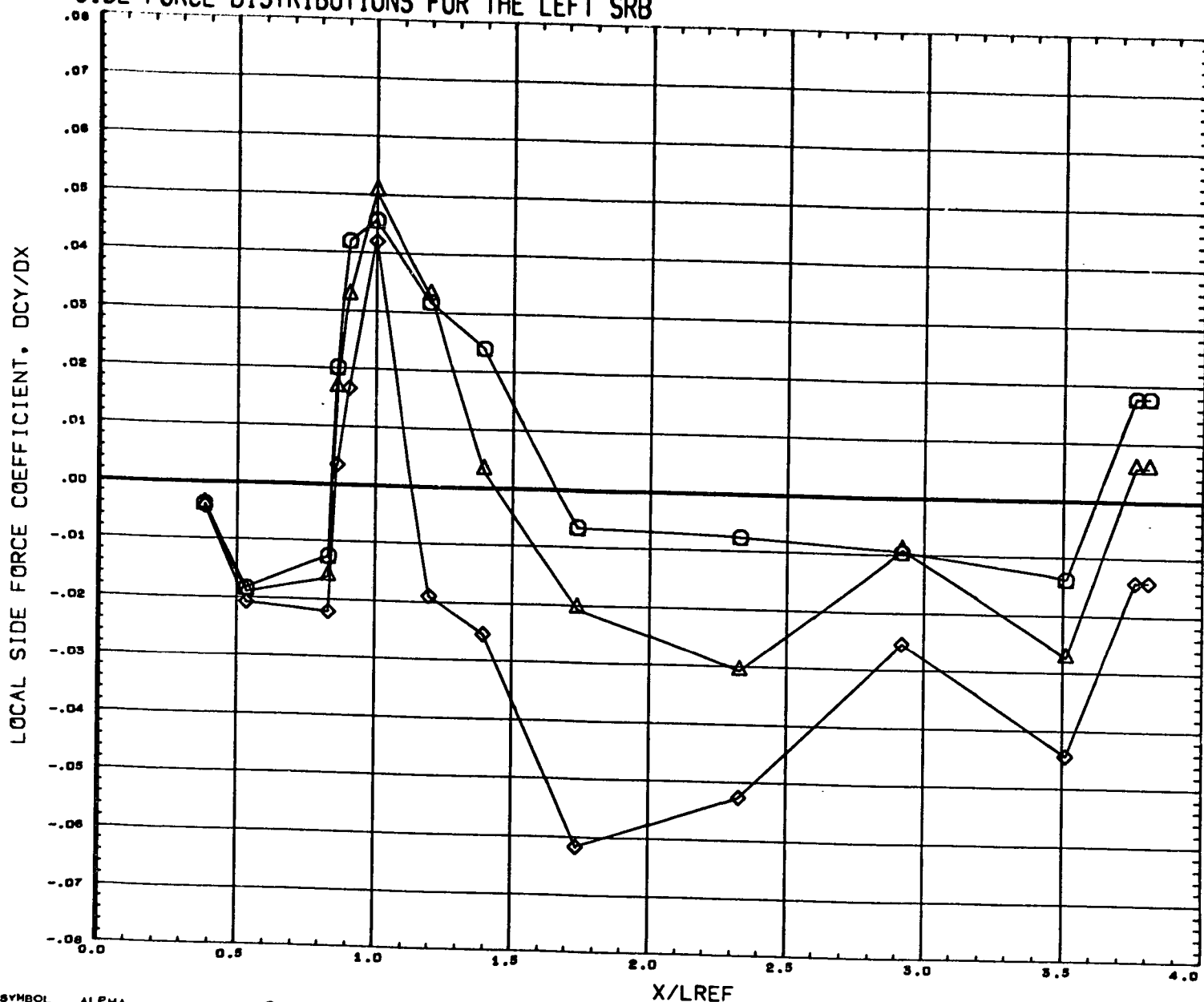


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 ORBINC - 1.500
 △ 4.000 0.025
 ◇ 10.000

REFERENCE INFORMATION
 SREF 7.6600 80. IN.
 LREF 2.0260 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2460 INCHES
 SCALE 0.0040 SCALE

MACH .95

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

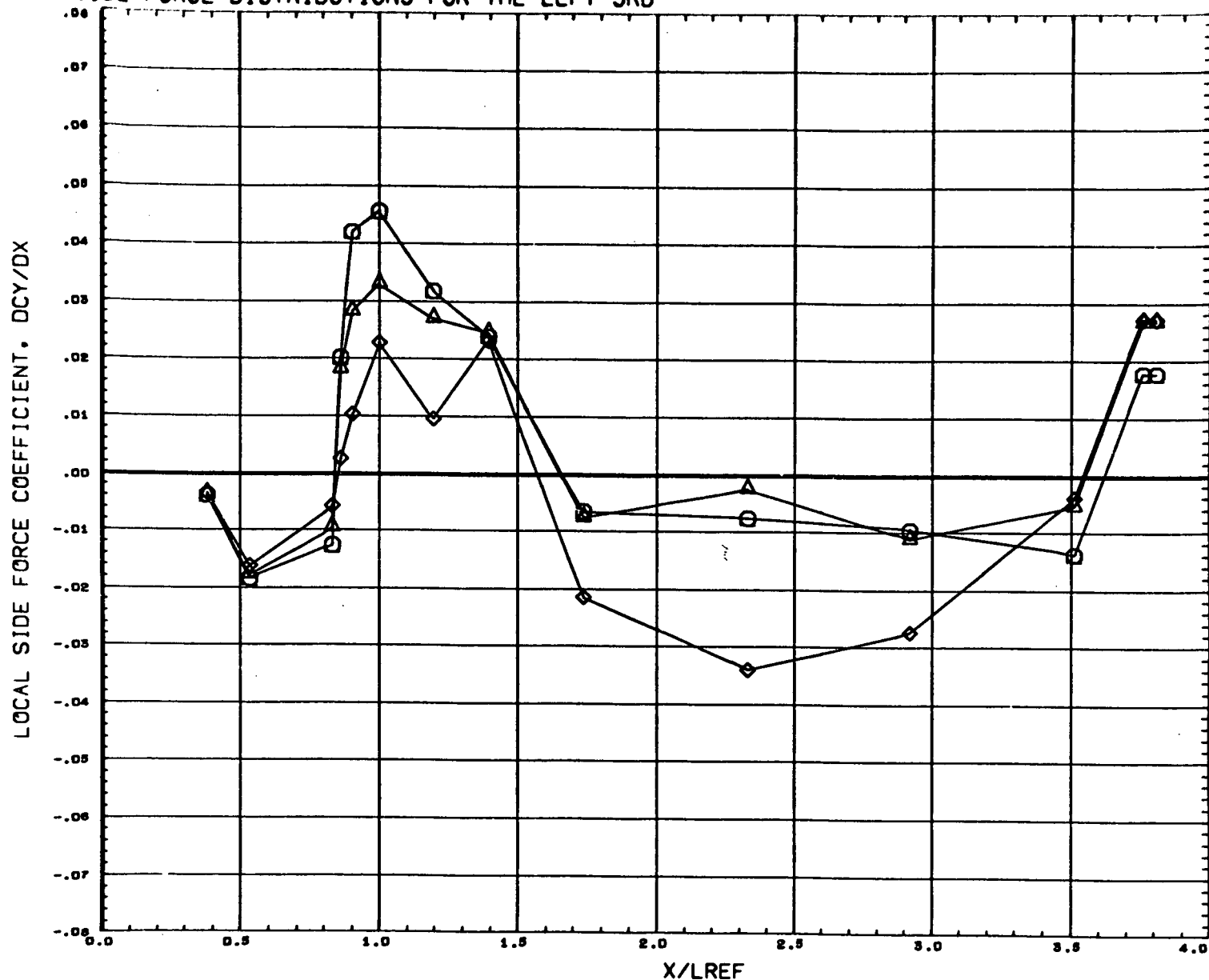


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	- 4.000	SRBCAP	0.025
◇	- 10.000		

REFERENCE INFORMATION		
SREF	7.8800	30. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XNRP	4.2260	INCHES
YNRP	0.0000	INCHES
ZNRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

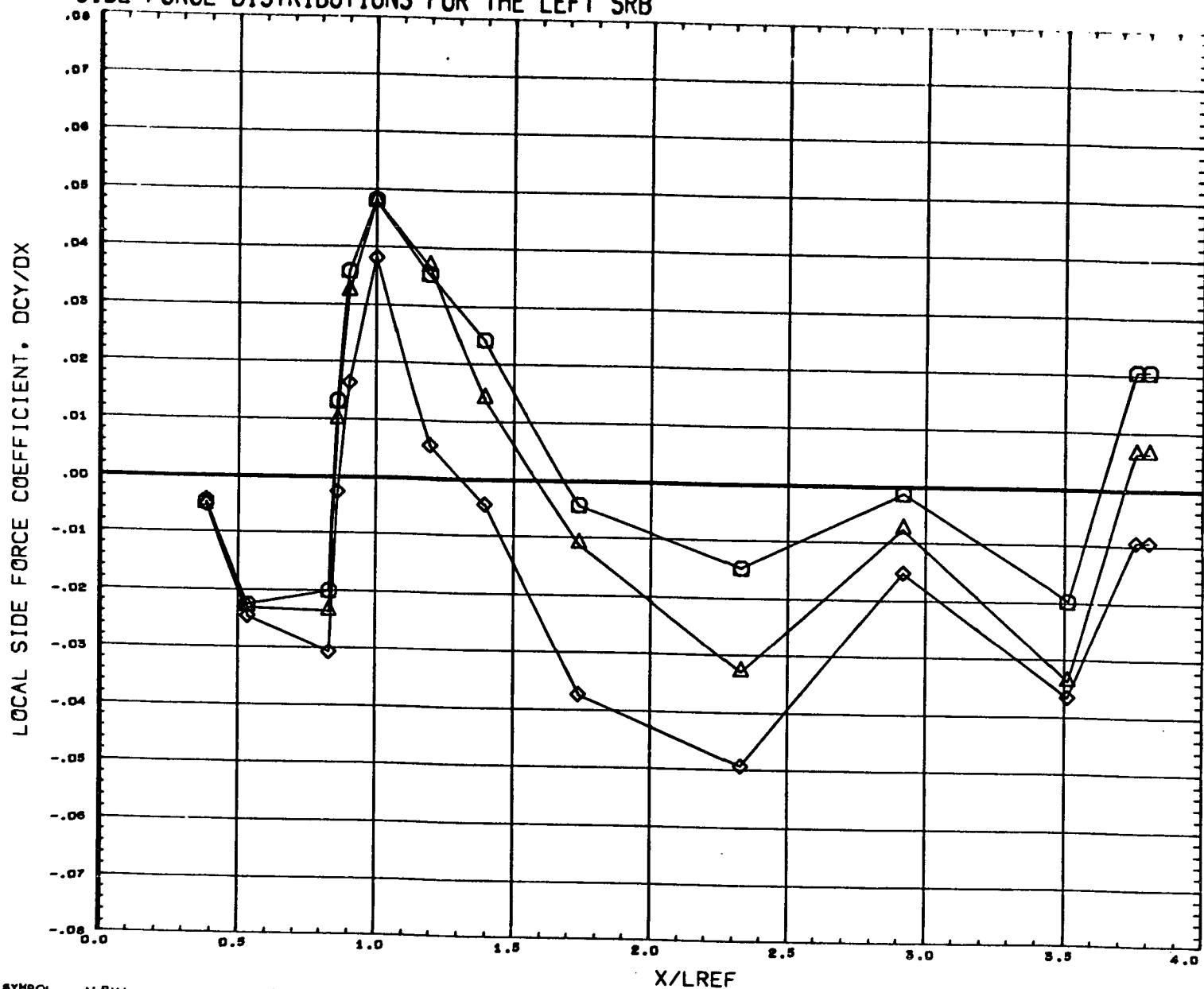


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	- 1.500
△	4.000	SRBGAP	0.025	
◇	10.000			

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	89. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

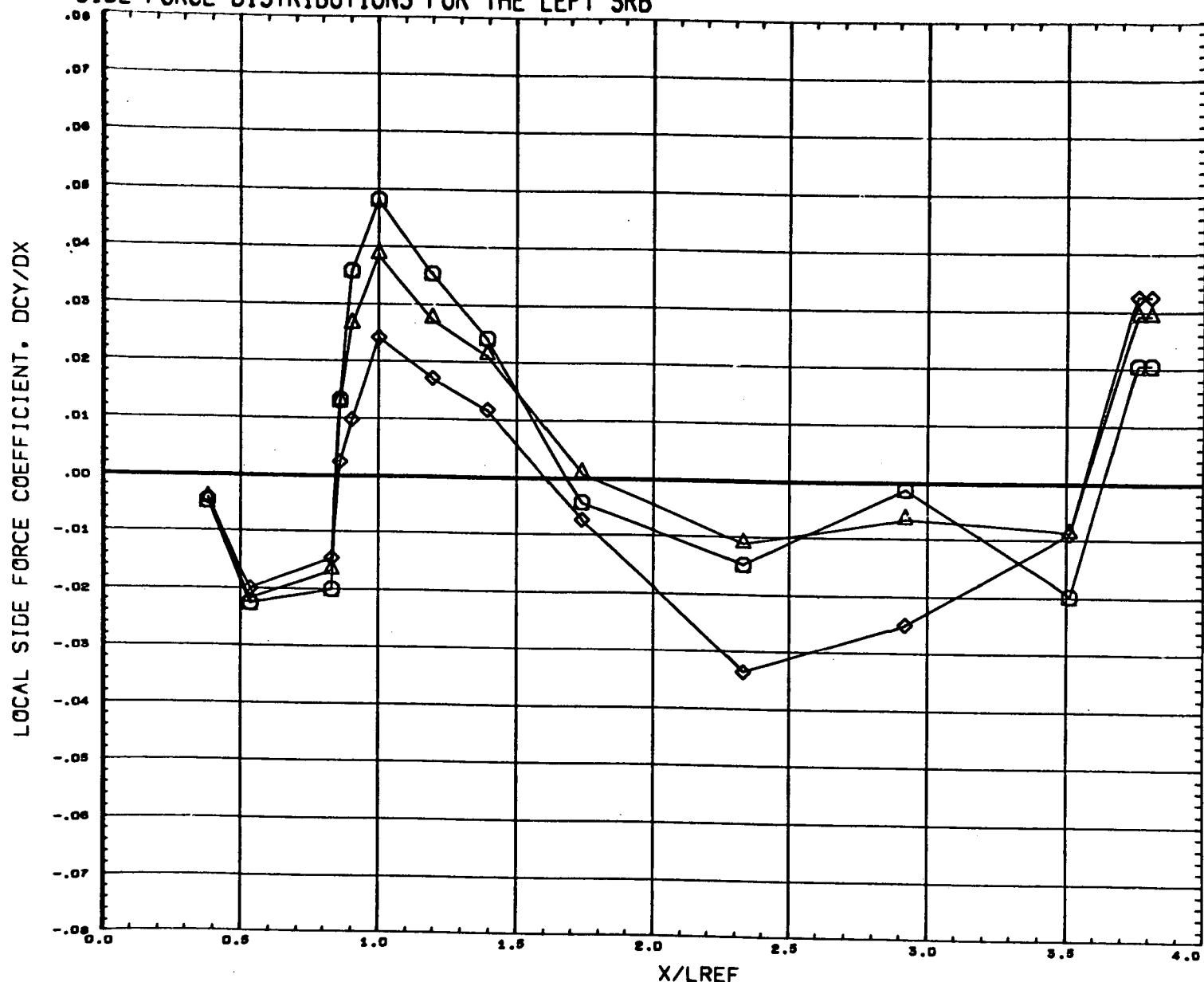


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRB GAP	0.025
◇	10.000		

MACH 1.46

REFERENCE INFORMATION		
SRF	7.8800	88 IN.
LRF	2.0280	INCHES
BRF	4.4600	INCHES
XHRP	4.2260	INCHES
YHRP	0.0000	INCHES
ZHRP	0.2480	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

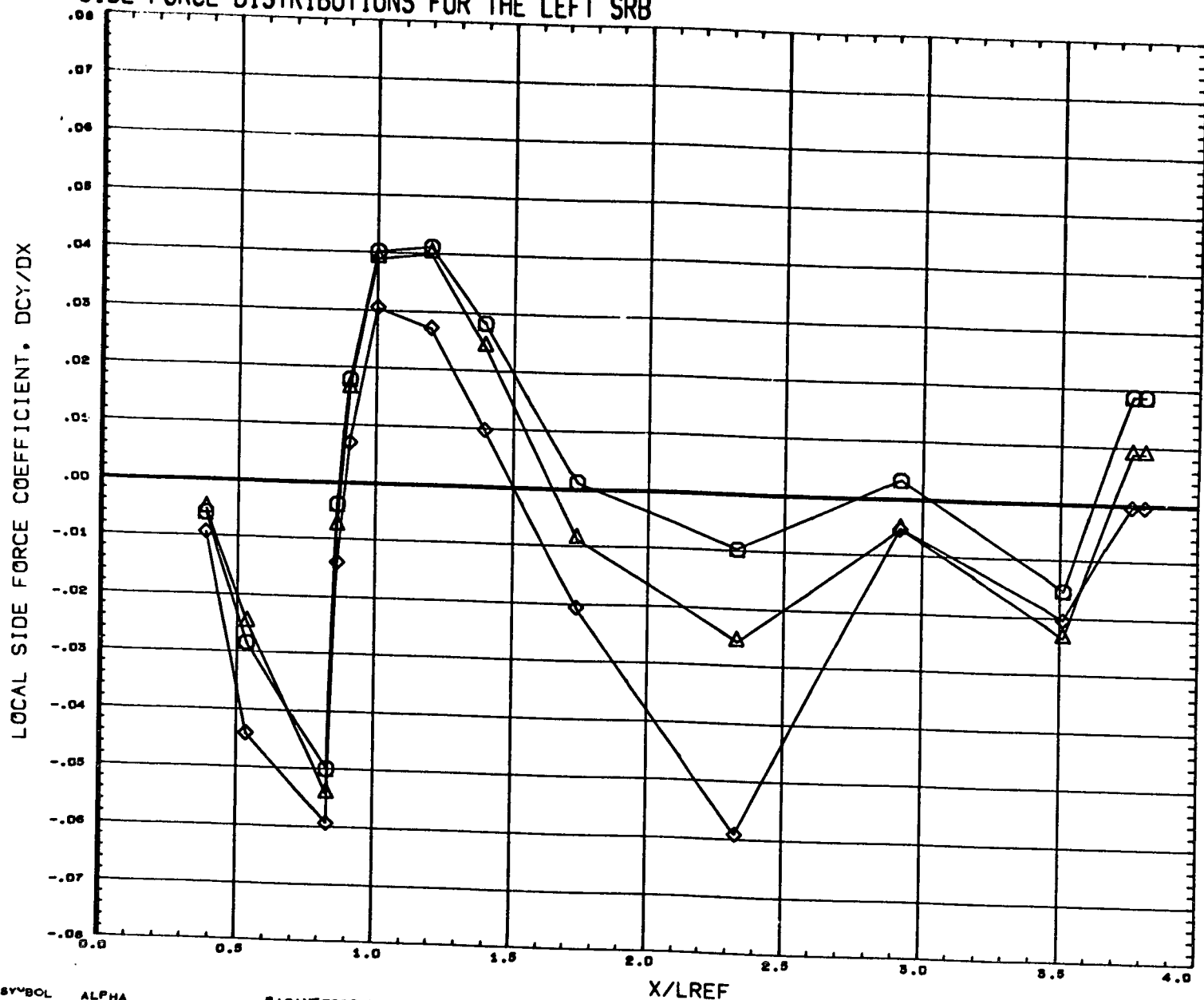


SYMBOL	○	ALPHA	PARAMETRIC VALUES	
	△	0.000	BETA	0.000 ORBINC - 1.500
	◇	4.000	SRBGAP	0.025
		10.000		

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

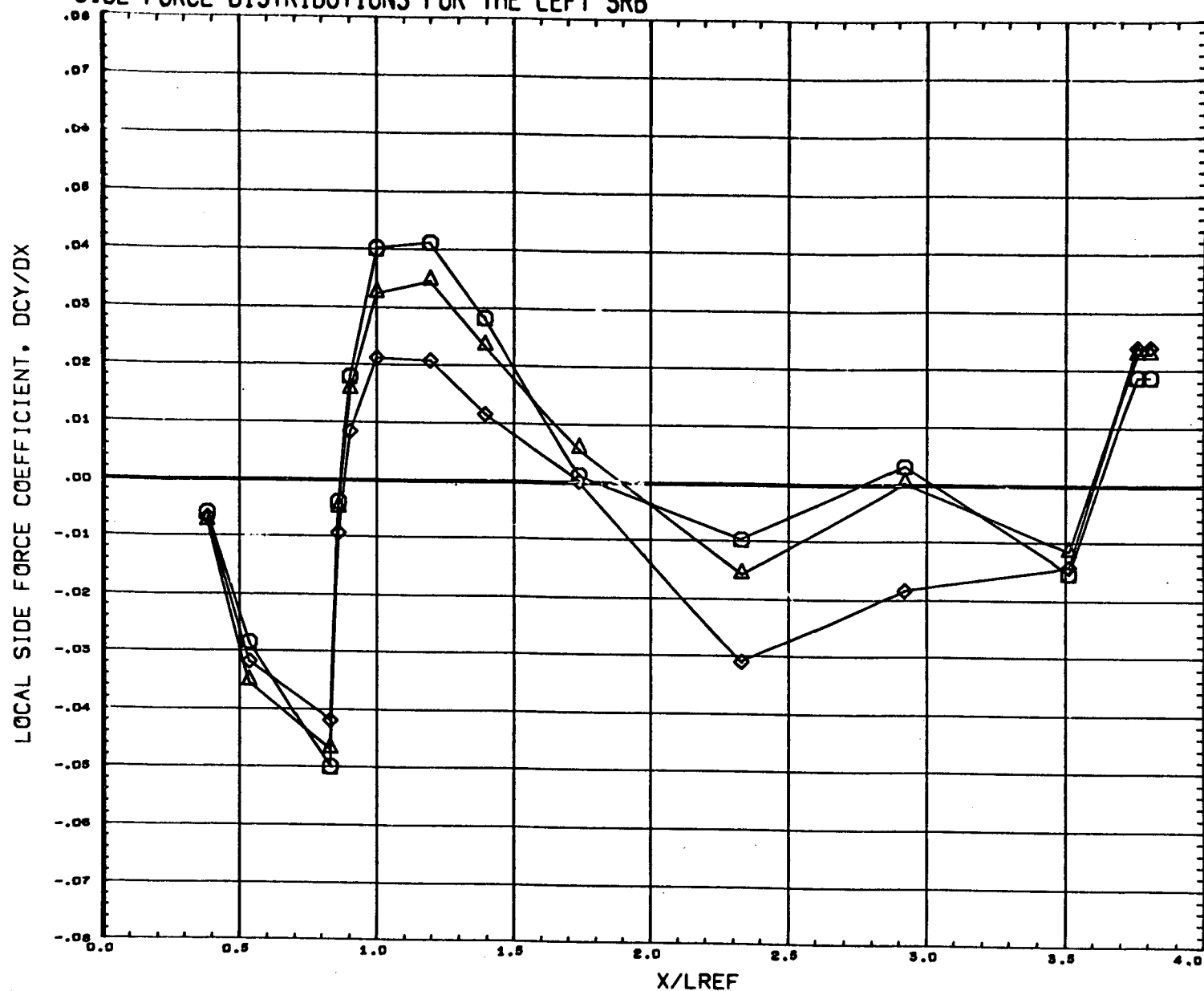


SYMBOL ALPHA BETA PARAMETRIC VALUES
 O 0.000 BETA 0.000 ORBINC - 1.500
 Δ - 4.000 SRBCAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.96

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

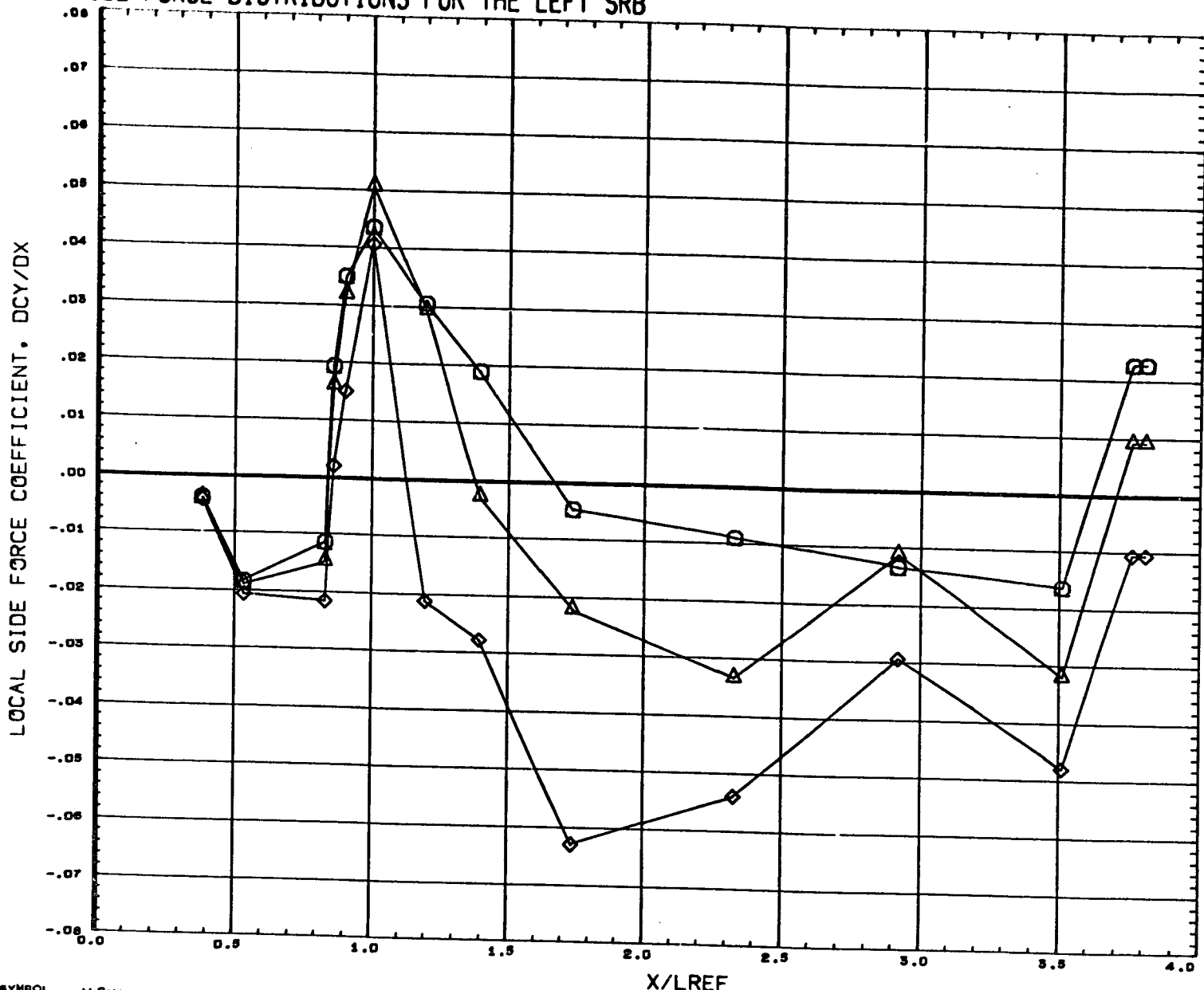


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SREF	7.8800	39. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.96

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB



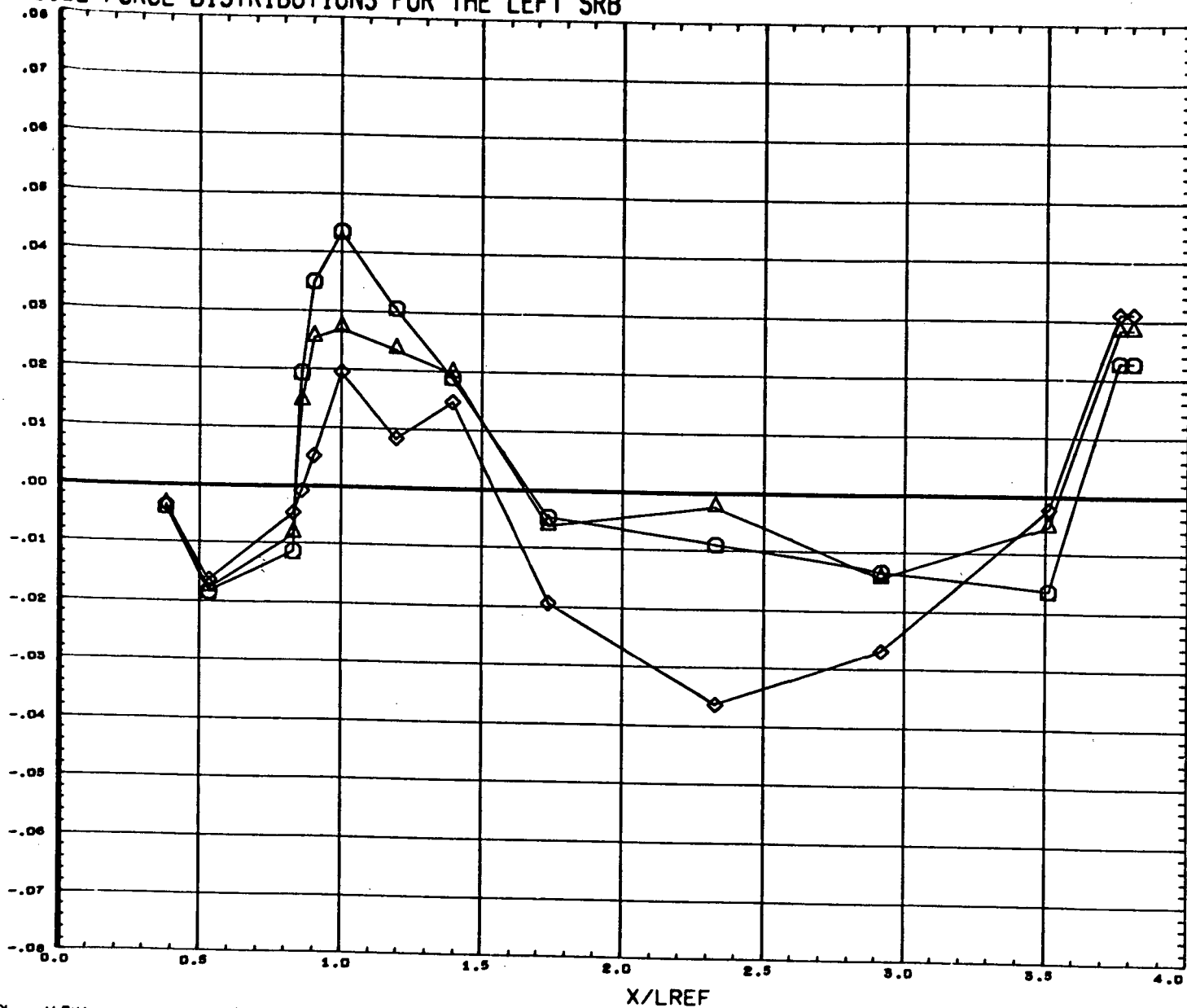
SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000 ORBINC 0.000
 △ - 4.000 SRBCAP 0.025
 ◇ - 10.000

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4800 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

LOCAL SIDE FORCE COEFFICIENT, DCY/DX

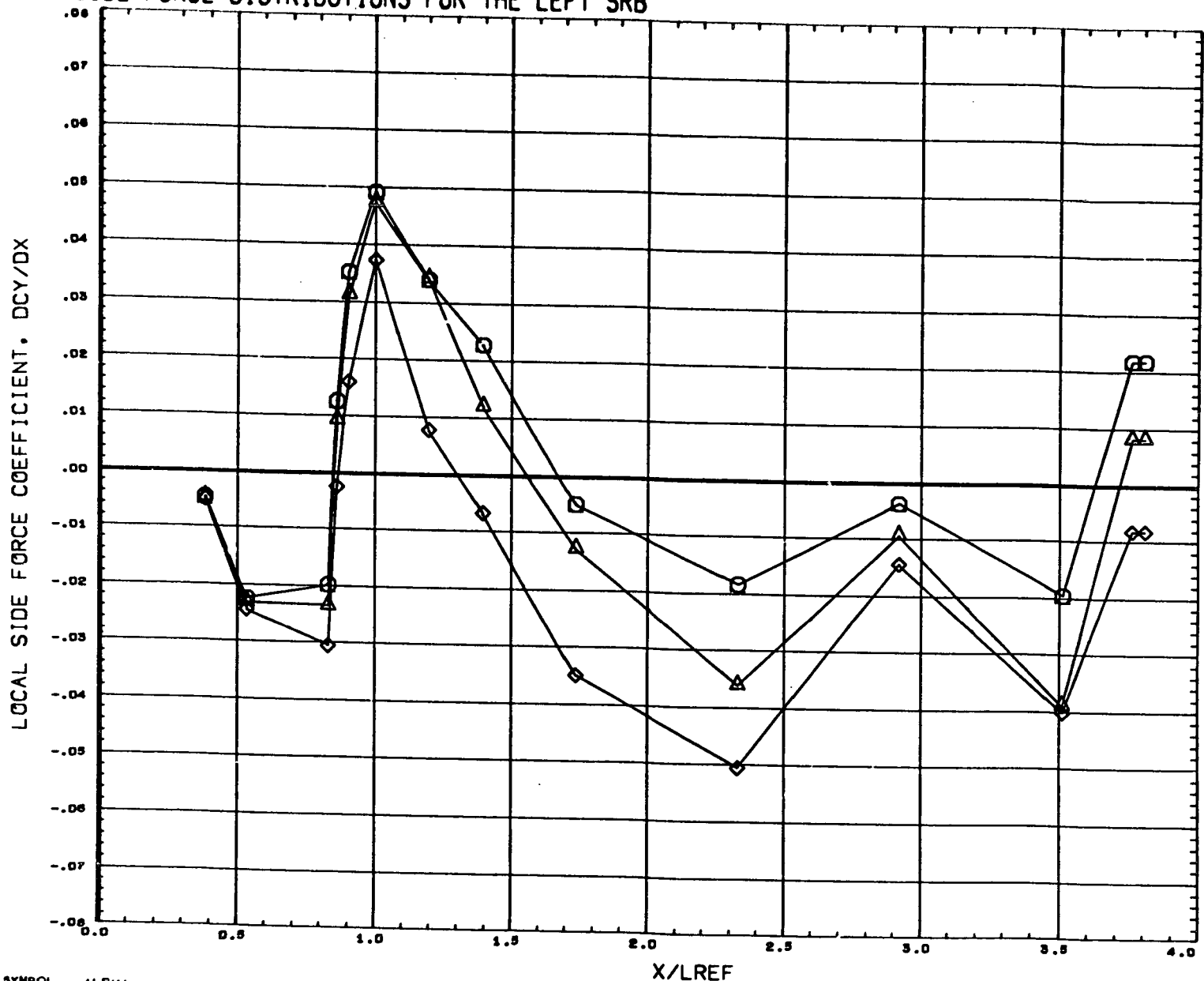


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	0.000
△	4.000	SRBGAP	0.025	
◇	10.000			

MACH 1.20

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

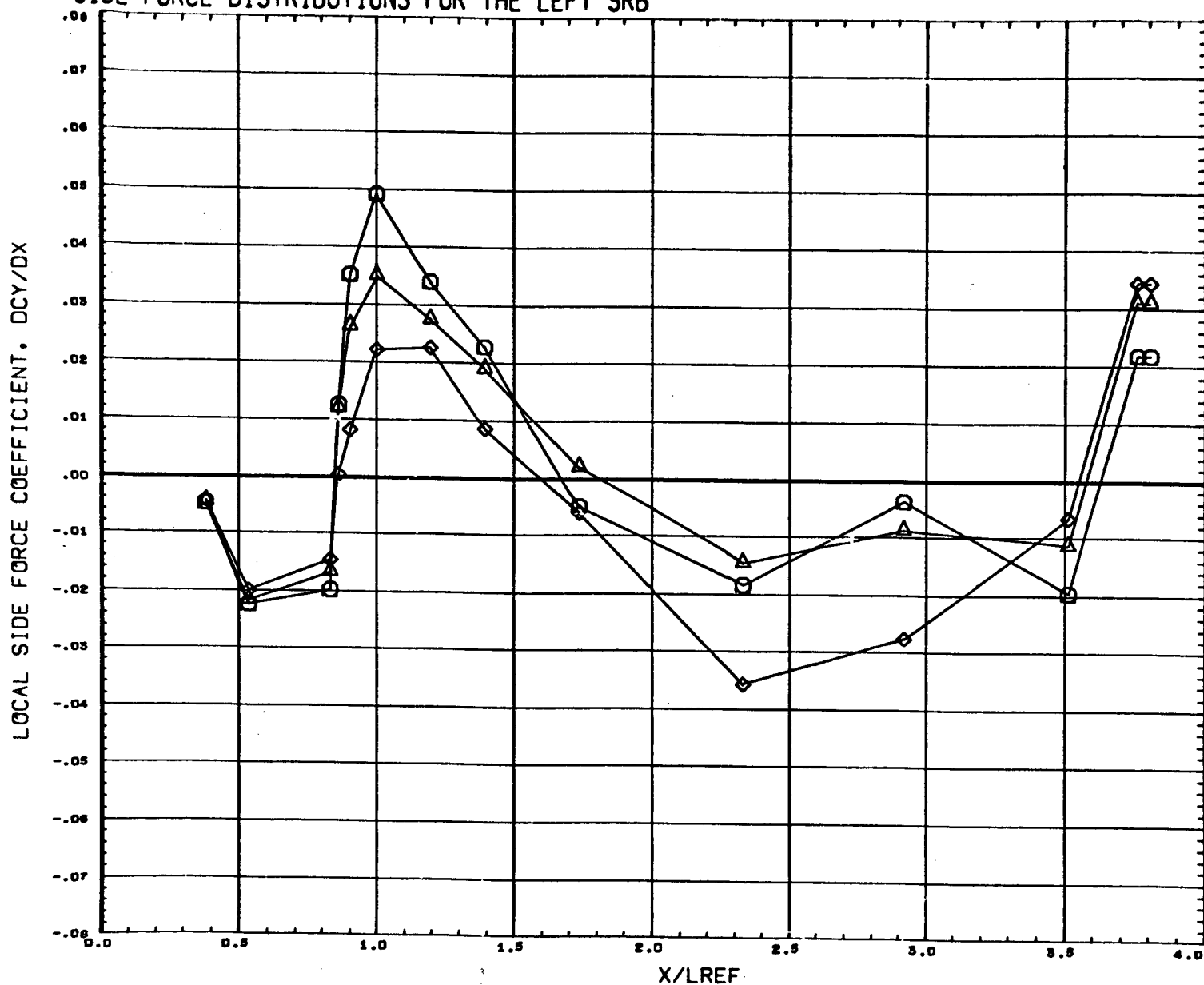


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	ORBITAL
○	0.000	0.000	0.000	0.000
△	4.000	0.025		
◇	10.000			

REFERENCE INFORMATION		
SREF	7.8800	89.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XHRP	4.2260	INCHES
YHRP	0.0000	INCHES
ZHRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

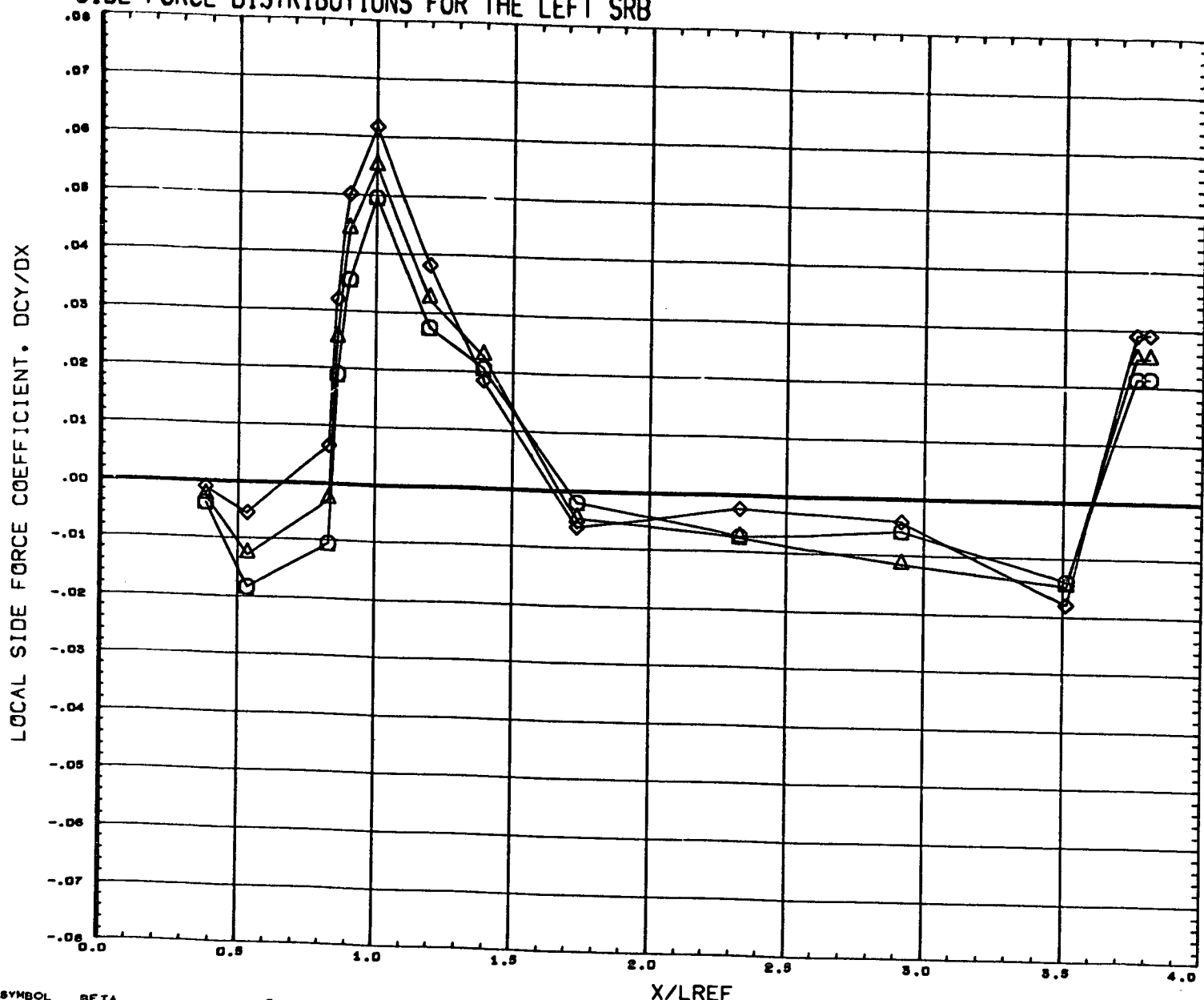


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	0.000	0.000	ORBINC	0.000
△	4.000	SRBCAP	0.025	
◇	10.000			

MACH 1.46

REFERENCE INFORMATION		
SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB



SYMBOL BETA
 ○ 0.000
 △ - 4.000
 ◇ - 10.000

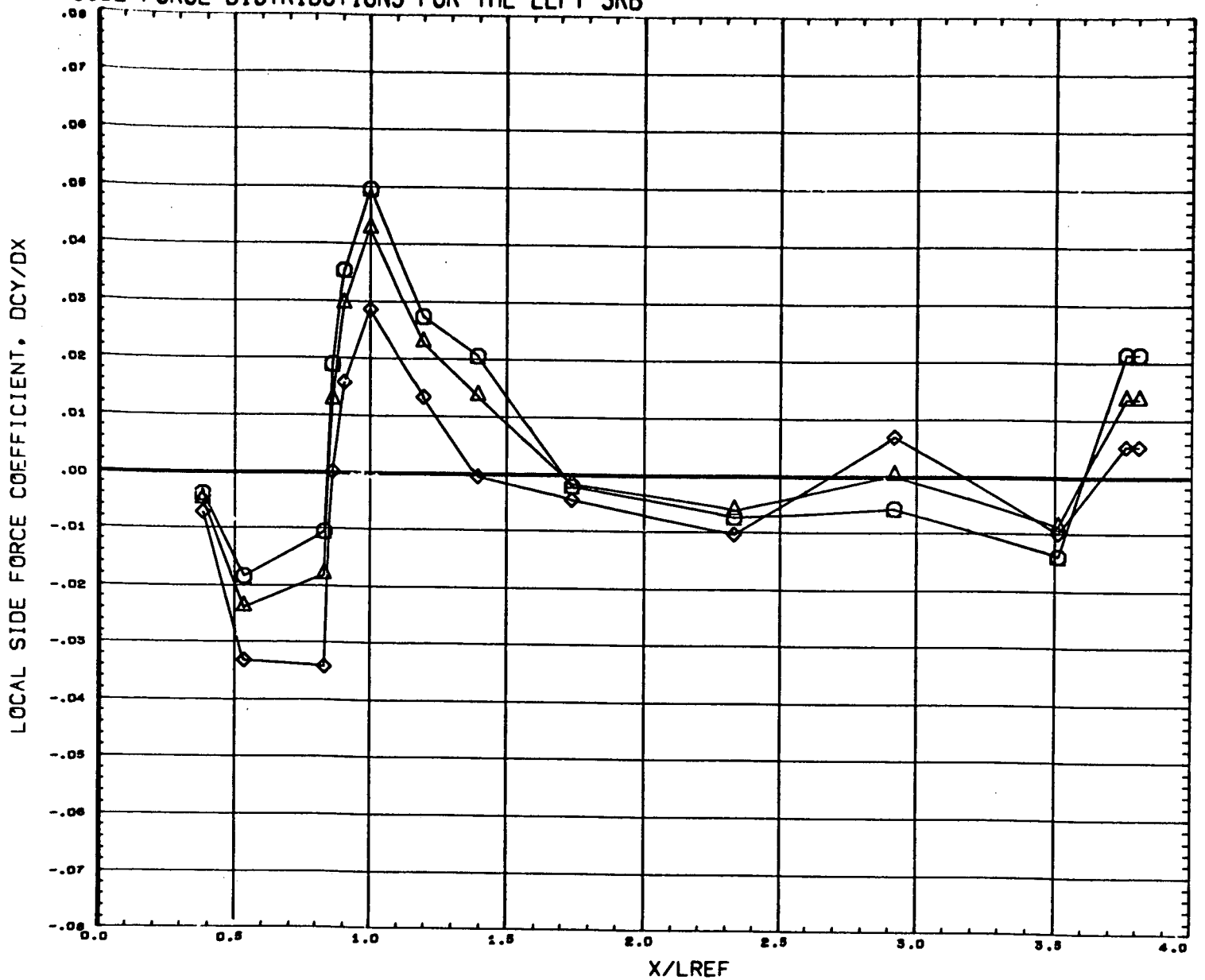
PARAMETRIC VALUES
 ALPHA 0.000
 SRB GAP 0.025
 ORB INC - 1.500

REFERENCE INFORMATION

SREF	7.8800	59. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

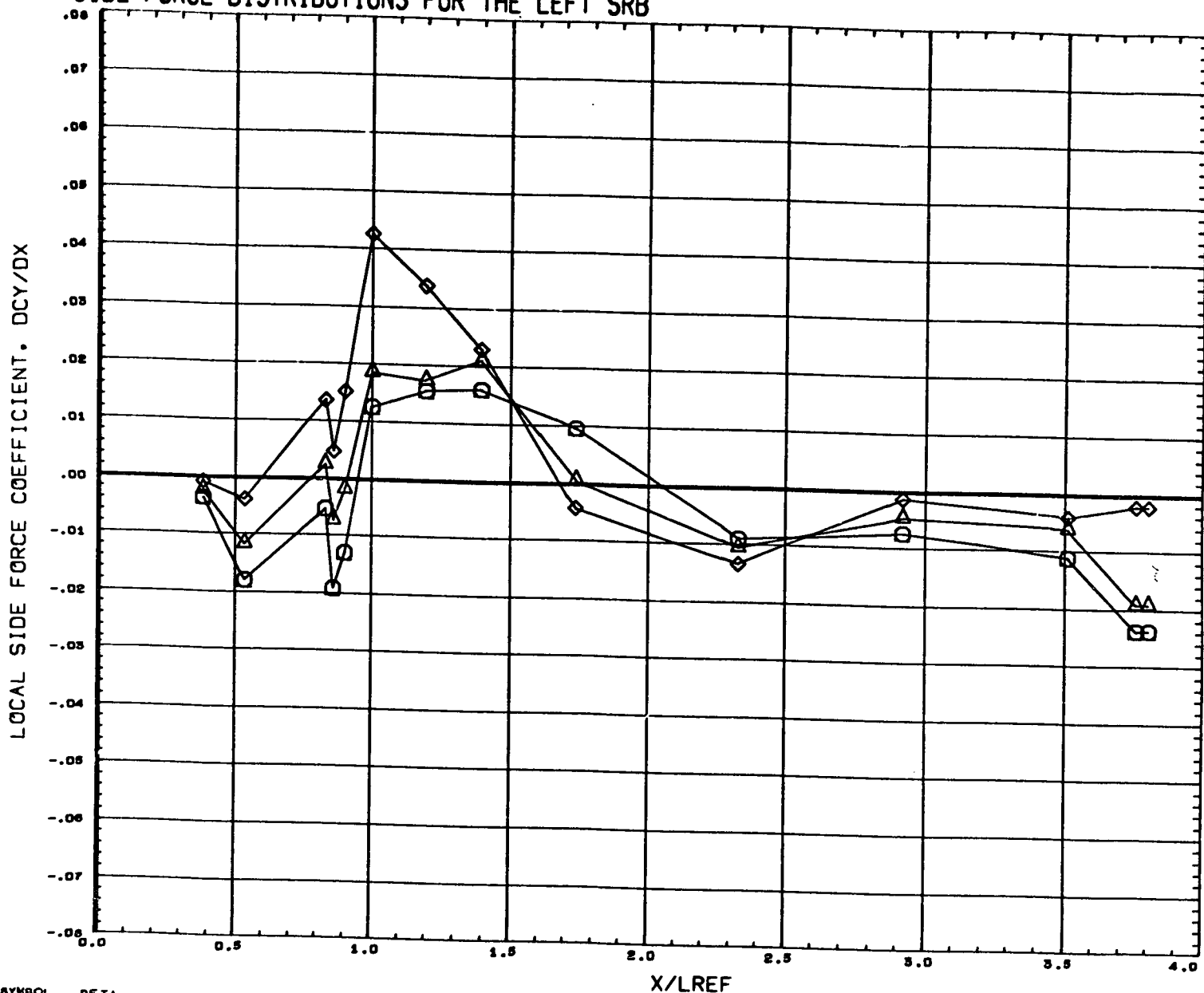


SYMBOL \circ \triangle \diamond
 BETA 0.000 4.000 10.000
 PARAMETRIC VALUES
 ALPHA 0.000 ORBINC - 1.500
 SRBCAP 0.025

REFERENCE INFORMATION
 SREF 7.6800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2400 INCHES
 SCALE 0.0040 SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB



SYMBOL BETA
 ○ 0.000
 △ - 4.000
 ◇ - 10.000

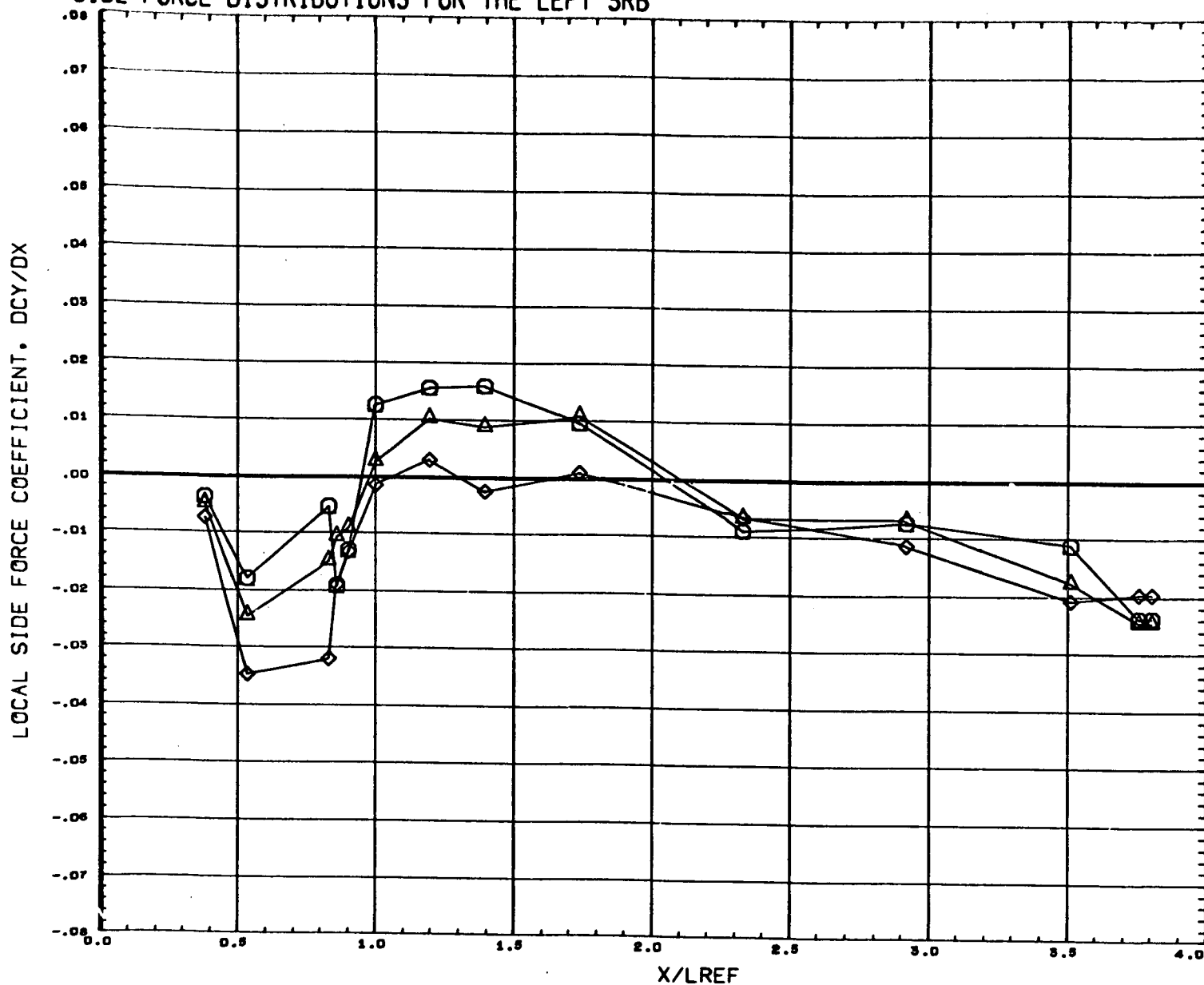
PARAMETRIC VALUES
 ALPHA 6.000
 SRBGAP 0.025
 ORBINC - 1.500

REFERENCE INFORMATION

SREF	7.8800	99.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMHP	4.2260	INCHES
YMHP	0.0000	INCHES
ZMHP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

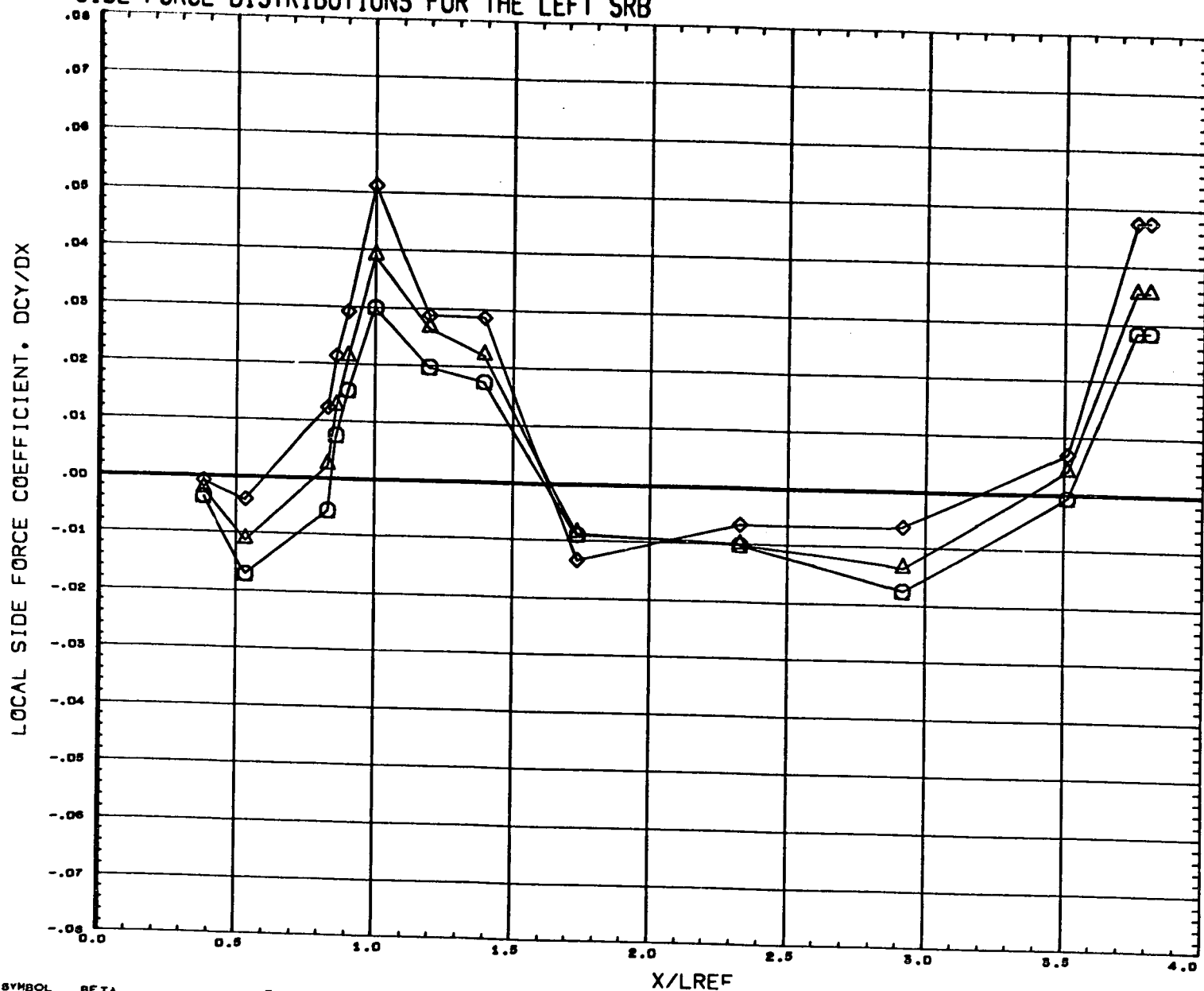


SYMBOL	BETA	ALPHA	PARAMETRIC VALUES	
○	0.000	6.000	ORBINC	- 1.500
△	4.000	SRBCAP	0.025	
◇	10.000			

REFERENCE INFORMATION		
SREF	7.6800	50. IN.
LREF	2.0280	INCHES
SRF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB

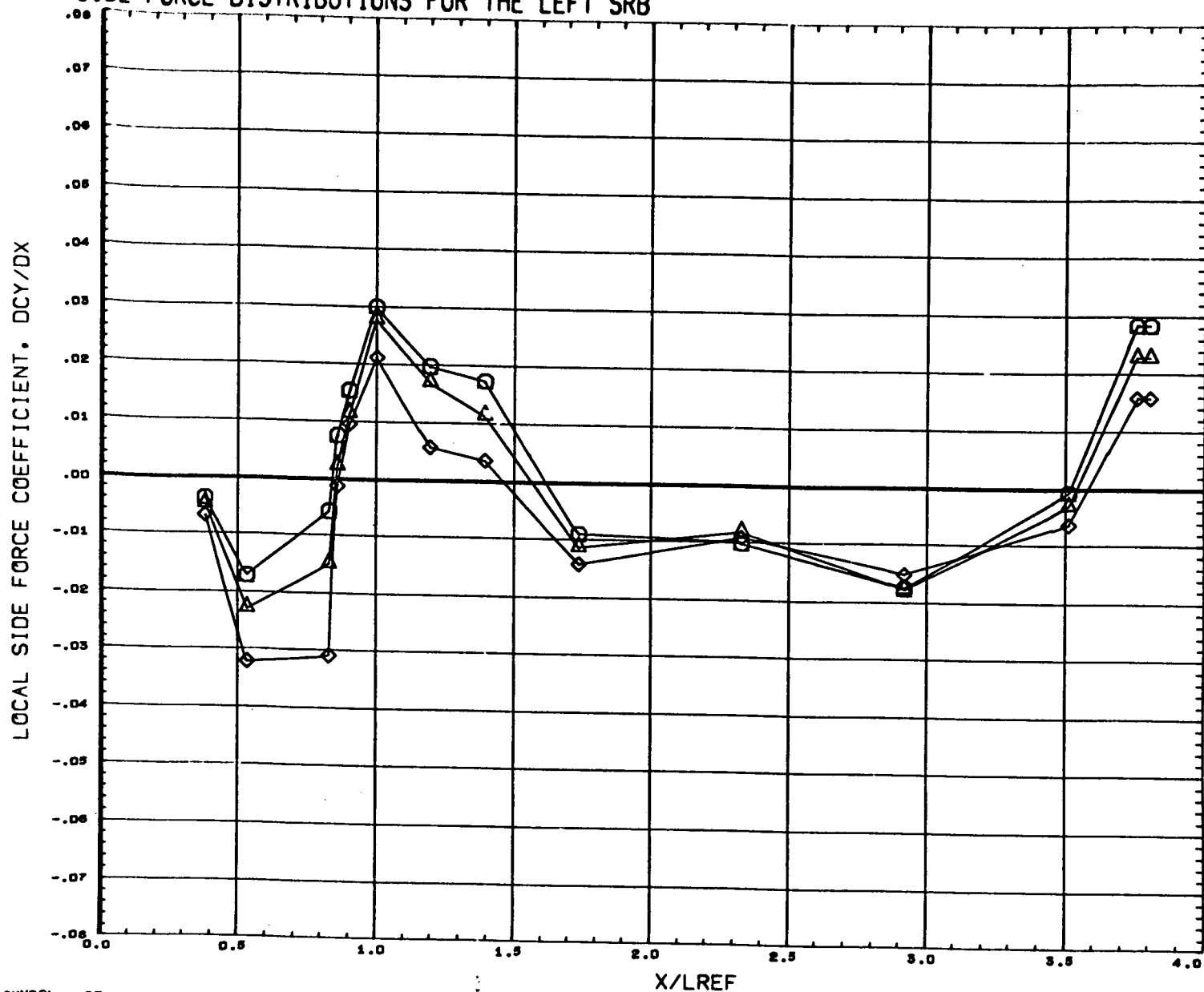


SYMBOL BETA ALPHA PARAMETRIC VALUES
 ○ 0.000 6.000 ORBINC - 1.500
 △ 4.000 SRBCAP 0.025
 ◇ 10.000

REFERENCE INFORMATION
 SREF 7.8800 80. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.20

SIDE FORCE DISTRIBUTIONS FOR THE LEFT SRB



SYMBOL	BETA	ALPHA	PARAMETRIC VALUES
○	0.000	0.000	ORBINC - 1.500
△	4.000	SRBGAP	0.025
◇	10.000		

REFERENCE INFORMATION		
SRF	7.8800	80. IN.
LREF	2.0280	INCHES
BRF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



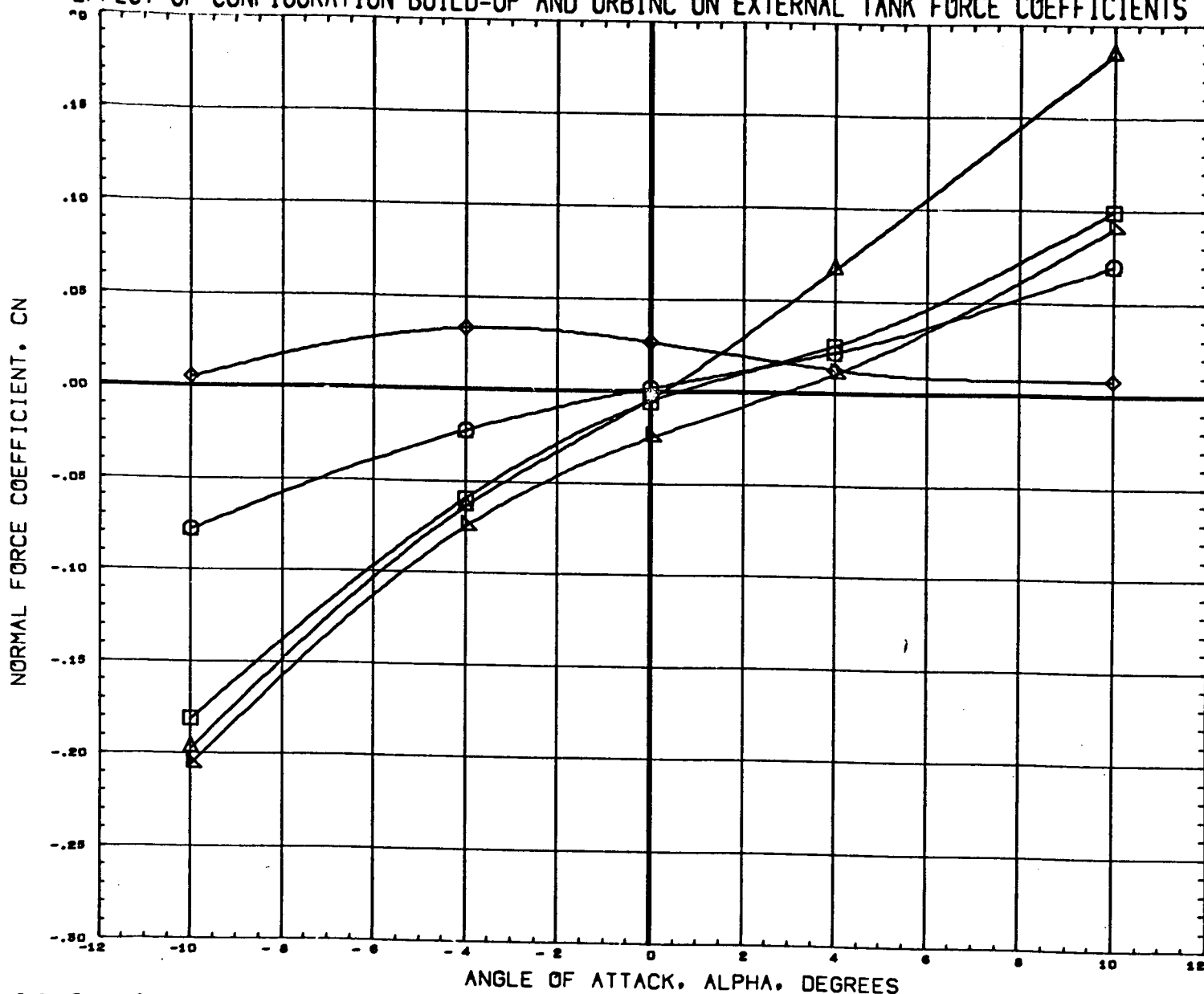
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (070000) MSFC 543-EXTERNAL TANK ALONE, T1
 (0705TK) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (070600) MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101
 (0701TK) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (0702TK) DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ORBINC	SRBGAP
0.000		
0.000		0.025
0.000	-1.500	
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.8800	sq. in.
LREF	2.0260	INCHES
SREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2440	INCHES
SCALE	0.0040	SCALE

MACH .80

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



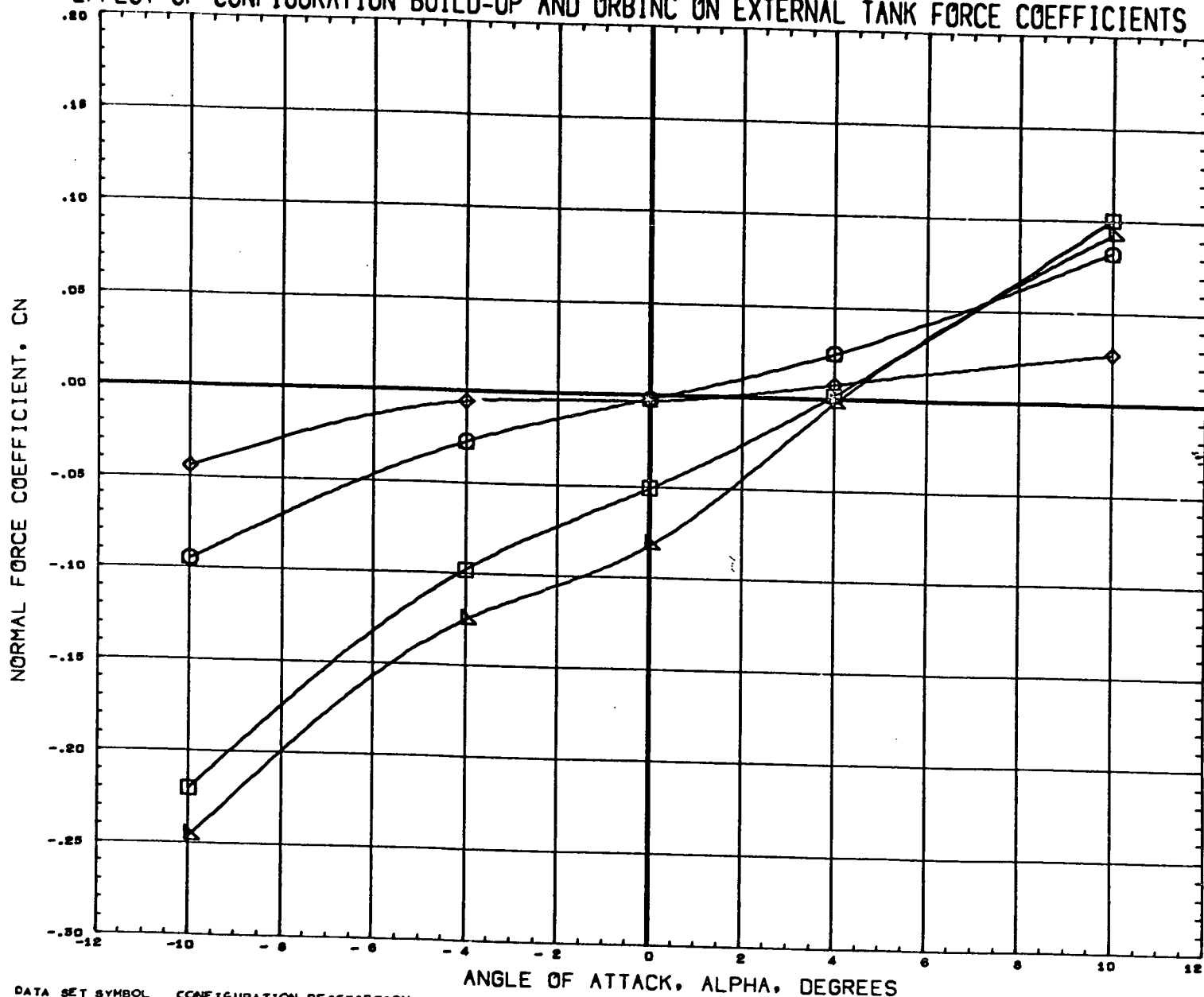
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(D70000)	MSFC 543-EXTERNAL TANK ALONE, T1
(D705TK)	MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1
(D70600)	MSFC 543-049 ORBITER WITH EXTERNAL TANK, T1O1
(E701TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
(D702TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

BETA	ORBINC	SRBCAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION	
SREF	7.8800 SQ. IN.
LREF	2.0280 INCHES
BREF	4.4600 INCHES
XMRP	4.2260 INCHES
YMRP	0.0000 INCHES
ZMRP	0.2460 INCHES
SCALE	0.0040 SCALE

MACH 1.20

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



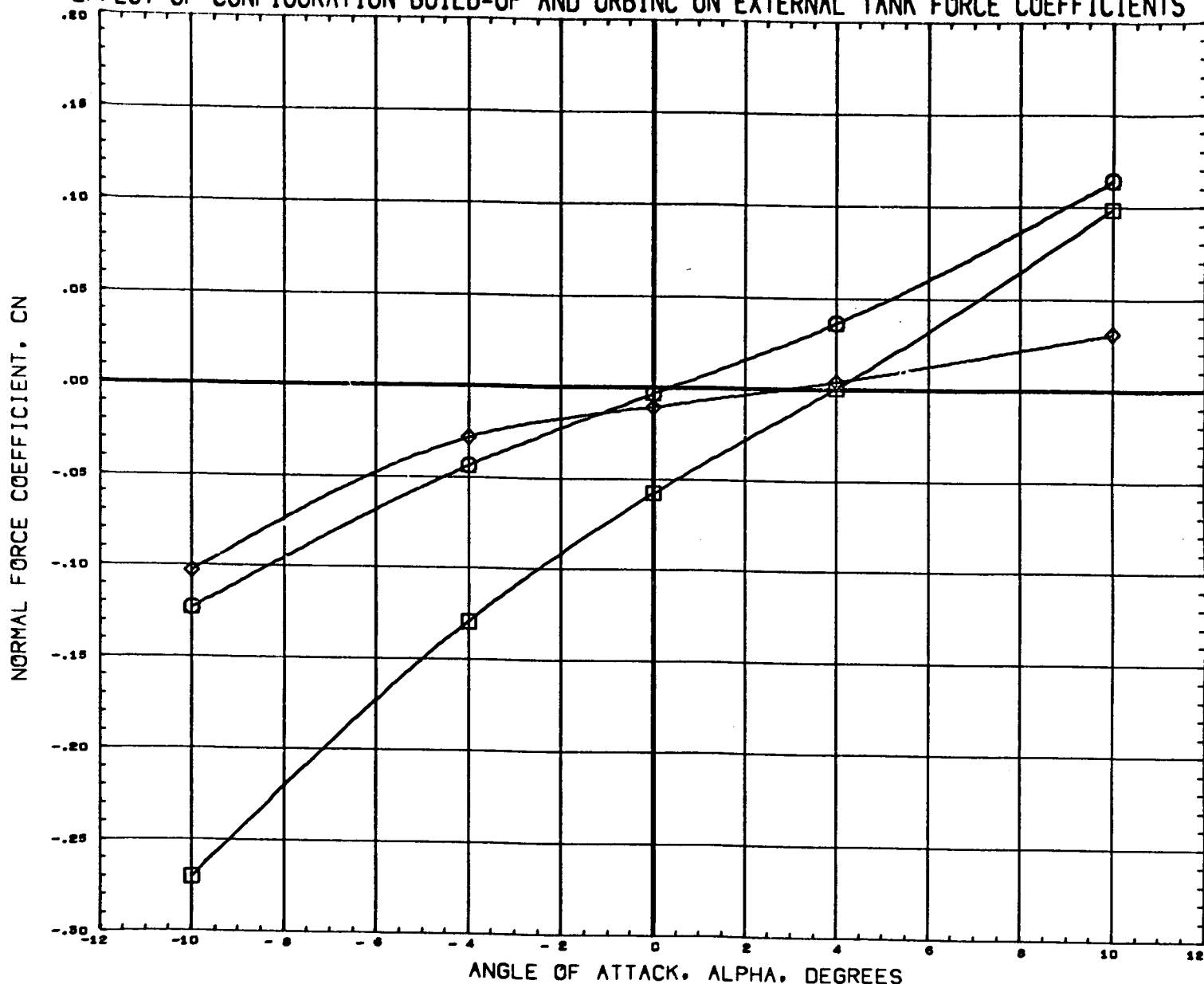
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(070000)	MSFC 543-EXTERNAL TANK ALONE, T1
(0705TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(070600)	MSFC 543-D49 ORBITER WITH EXTERNAL TANK, T101
(0701TK)	MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
(0702TK)	MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

BETA	ORBINC	SRBGAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.8800	SQ. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH. 1.46

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(D70000)	MSFC 543-EXTERNAL TANK ALONE, T1
(D705TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(D70600)	MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101
(E701TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T19101
(D702TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS

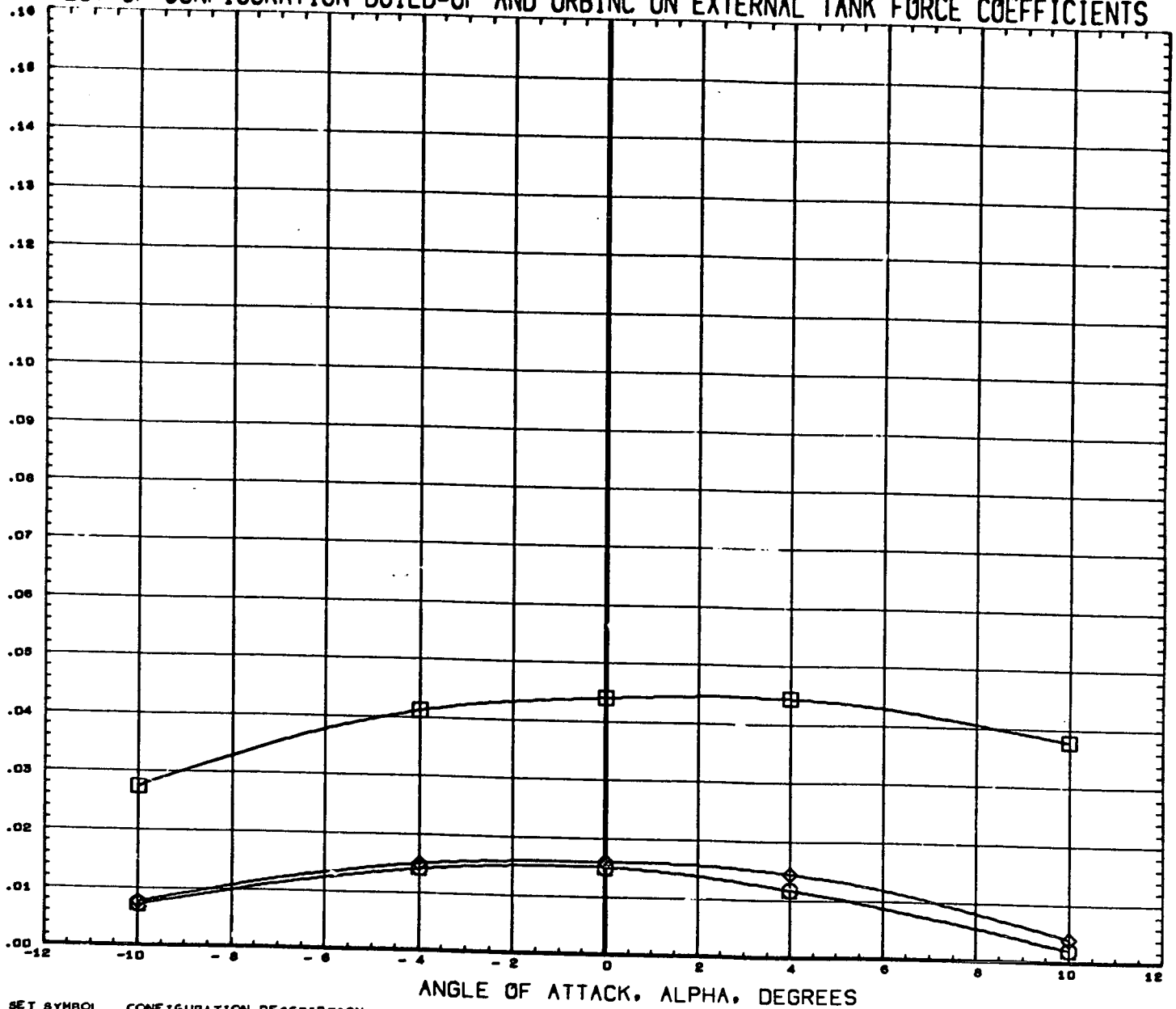
BETA	ORBINC	SRBCAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
VMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH 1.96

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (070000) MSFC 543-EXTERNAL TANK ALONE, T1
 (0705TK) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (070600) MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101
 (0701TK) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T18101
 (0702TK) DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA ORBINC SRBGAP
 0.000
 0.000
 0.000 -1.500 0.025
 0.000 -1.500 0.025
 0.000 0.000 0.025

REFERENCE INFORMATION
 SREF 7.8800 99.1N.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH .80

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(070000)	MSFC 543-EXTERNAL TANK ALONE, T1
(0705TK)	MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1
(070600)	MSFC 543-049 ORBITER WITH EXTERNAL TANK, T1O1
(0701TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
(0702TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

BETA	ORBINC	SRBCAP
0.000		
0.000		0.025
0.000	-1.500	
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION

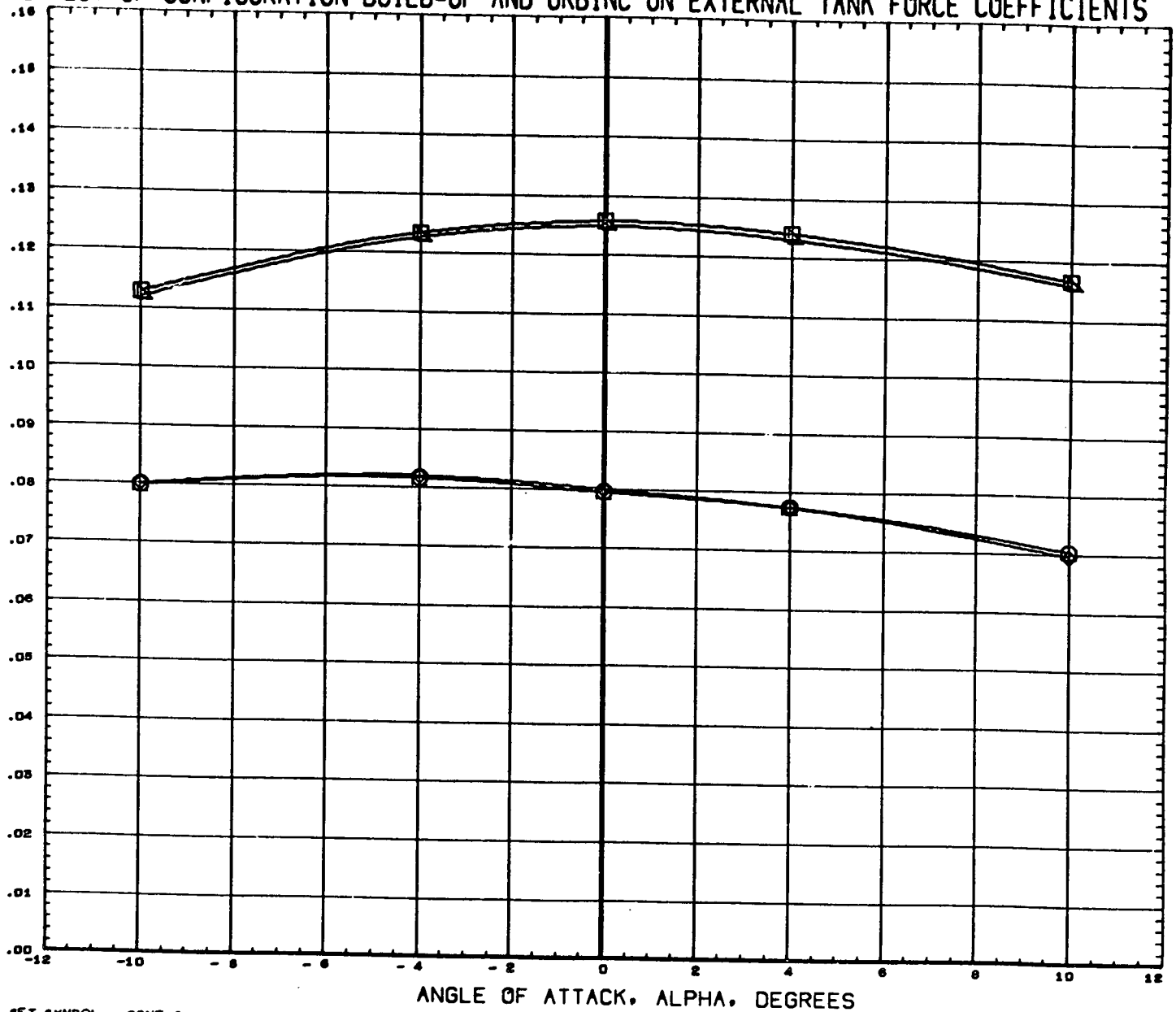
SREF	7.6600	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
KMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 893

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



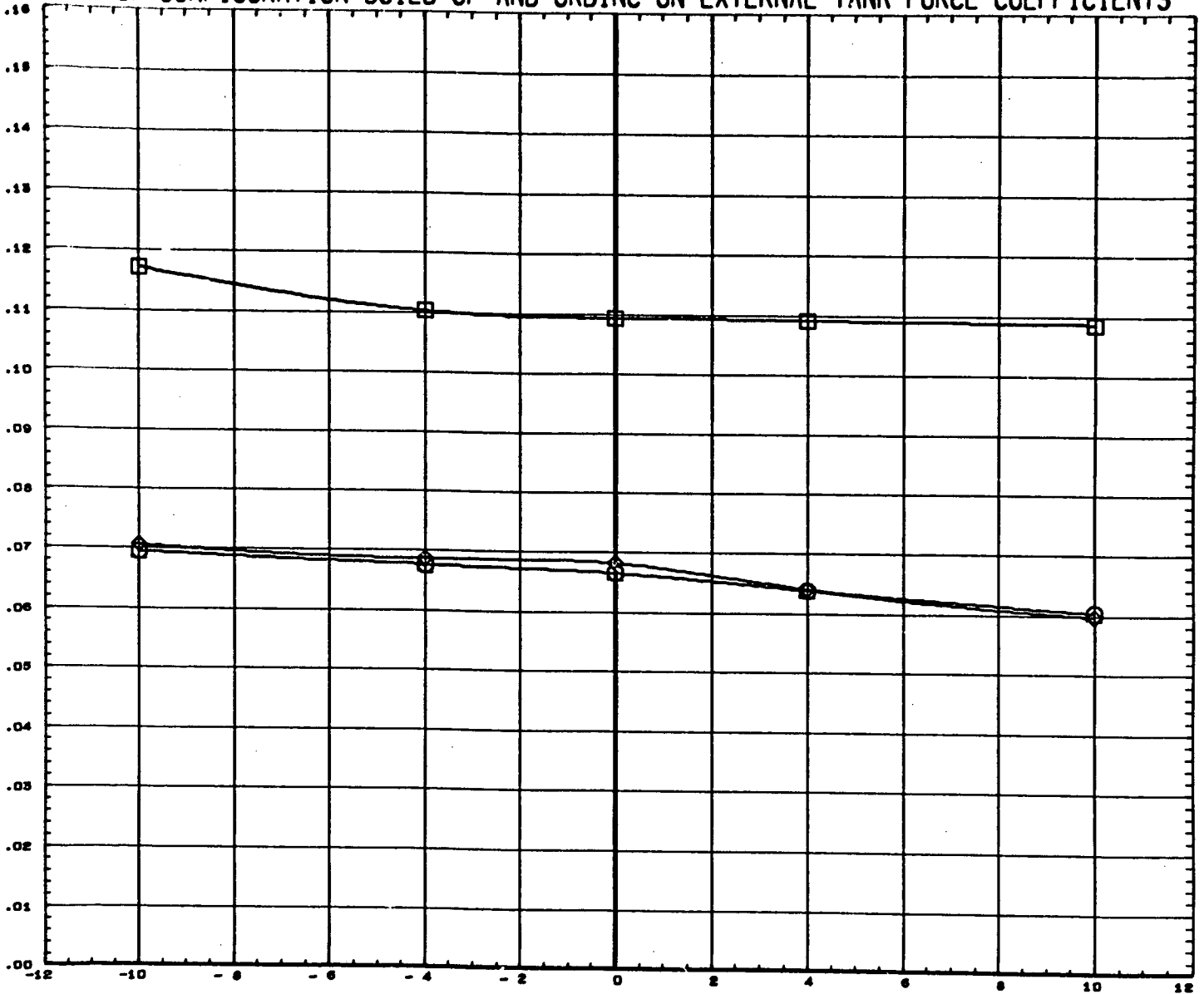
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(070000)	MSFC 543-EXTERNAL TANK ALONE, T1
(0705TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(070600)	MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101
(0701TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(0702TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

BETA	ORBINC	SRBGAP
0.000		
0.000		0.025
0.000	-1.500	
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.8800	sq. in.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



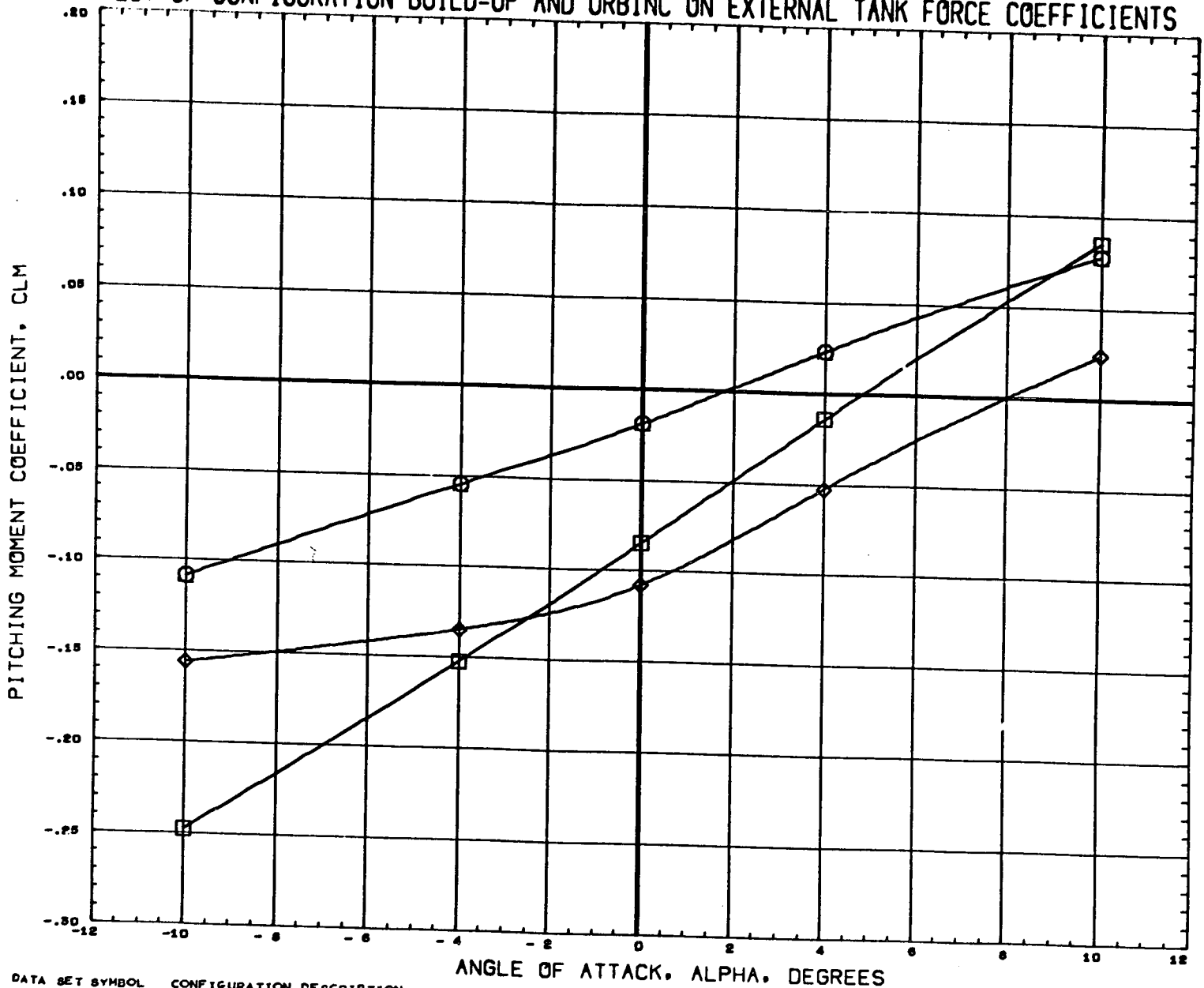
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(D70000)	MSFC 543-EXTERNAL TANK ALONE, T1
(D705TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(D70600)	MSFC 543-040 ORBITER WITH EXTERNAL TANK, T101
(E701TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(D702TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ORBINC	SRBCAP
0.000		
0.000		0.025
0.000	-1.500	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.6800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.96

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(070000) MSFC 543-EXTERNAL TANK ALONE, T1

(0701TK) DATA NOT AVAILABLE FOR ALL CONDITIONS

(070600) MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101

(0701TK) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

(0702TK) DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA ORBINC SRBGAP

0.000 0.000 0.025

0.000 -1.500 0.025

0.000 -1.500 0.025

0.000 0.000 0.025

REFERENCE INFORMATION

SREF 7.8800 39.1N.

LREF 2.0280 INCHES

BREF 4.4600 INCHES

XMRP 4.2260 INCHES

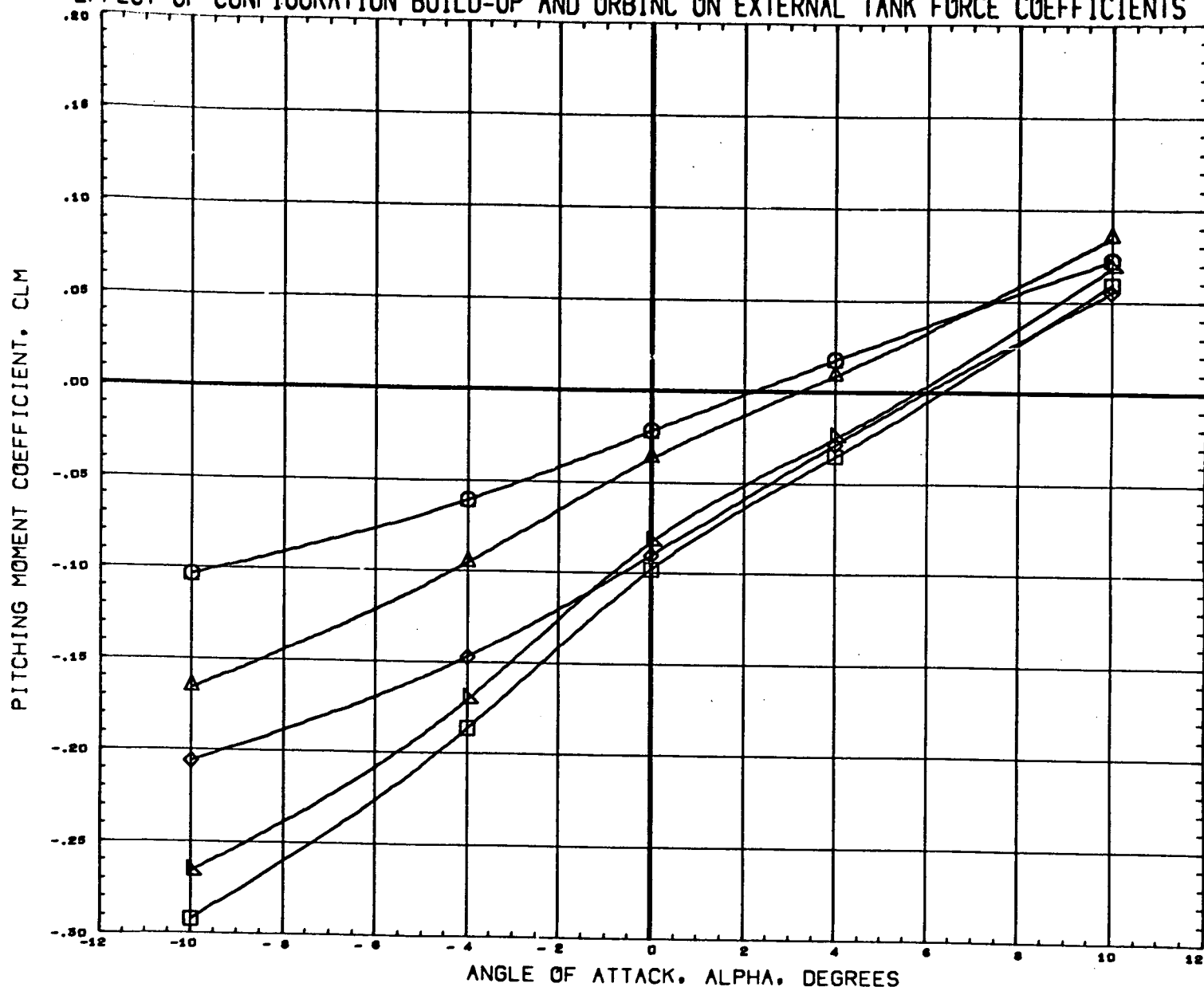
YMRP 0.0000 INCHES

ZMRP 0.2480 INCHES

SCALE 0.0040 SCALE

MACH .80

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



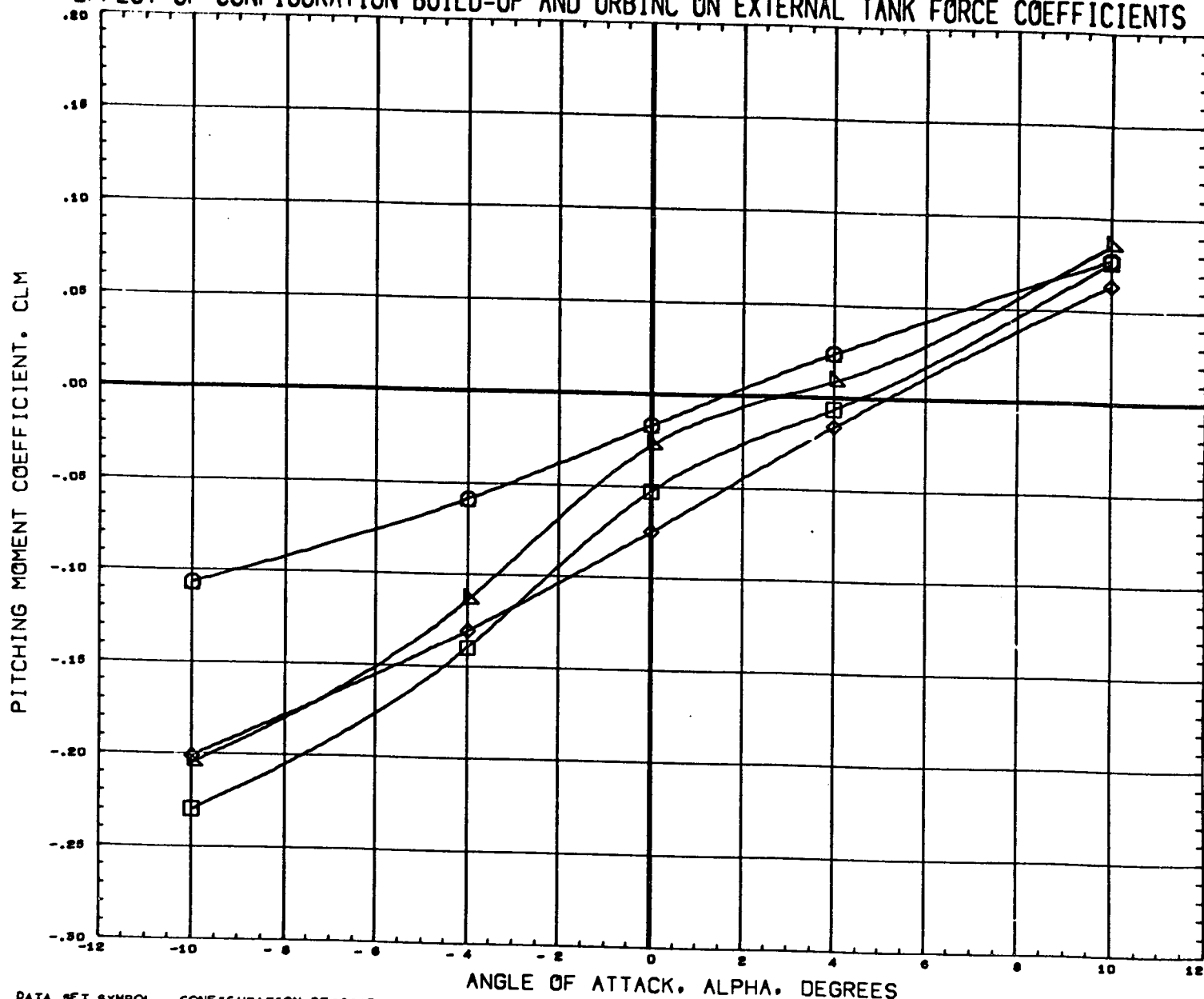
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(070000)	MSFC 543-EXTERNAL TANK ALONE, T1
(0705TK)	MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1
(070600)	MSFC 543-049 ORBITER WITH EXTERNAL TANK, T1O1
(E701TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
(0702TK)	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

BETA	ORBINC	SRBGAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (070000) MSFC 543-EXTERNAL TANK ALONE, T1
 (0705TK) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (070600) MSFC 543-049 ORBITER WITH EXTERNAL TANK, T101
 (0701TK) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (0702TK) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

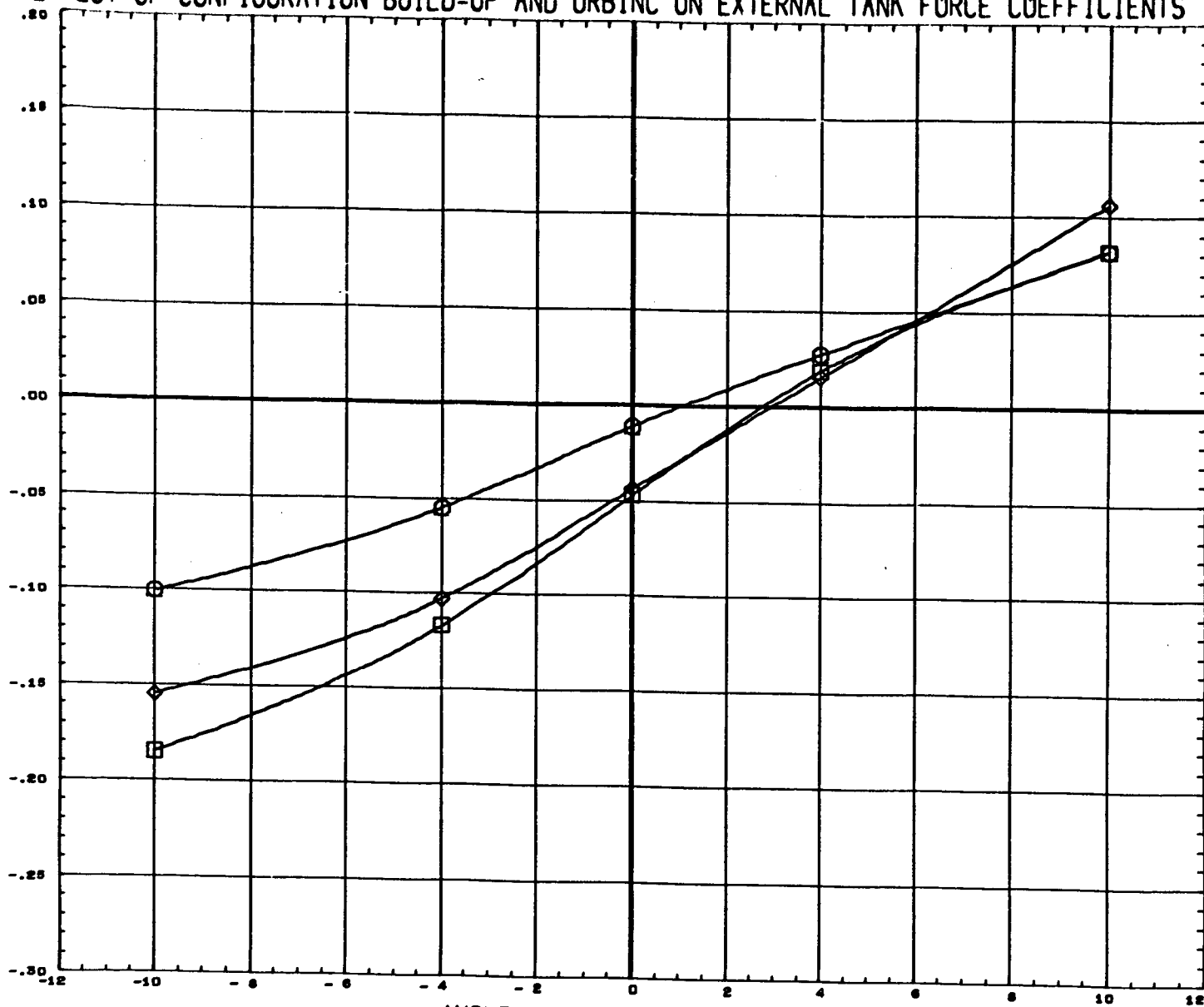
BETA ORBINC SRBGAP
 0.000 0.000 0.025
 0.000 -1.500 0.025
 0.030 -1.500 0.025
 0.000 0.000 0.025

REFERENCE INFORMATION
 SREF 7.6800 90 IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.46

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON EXTERNAL TANK FORCE COEFFICIENTS

PITCHING MOMENT COEFFICIENT, CLM



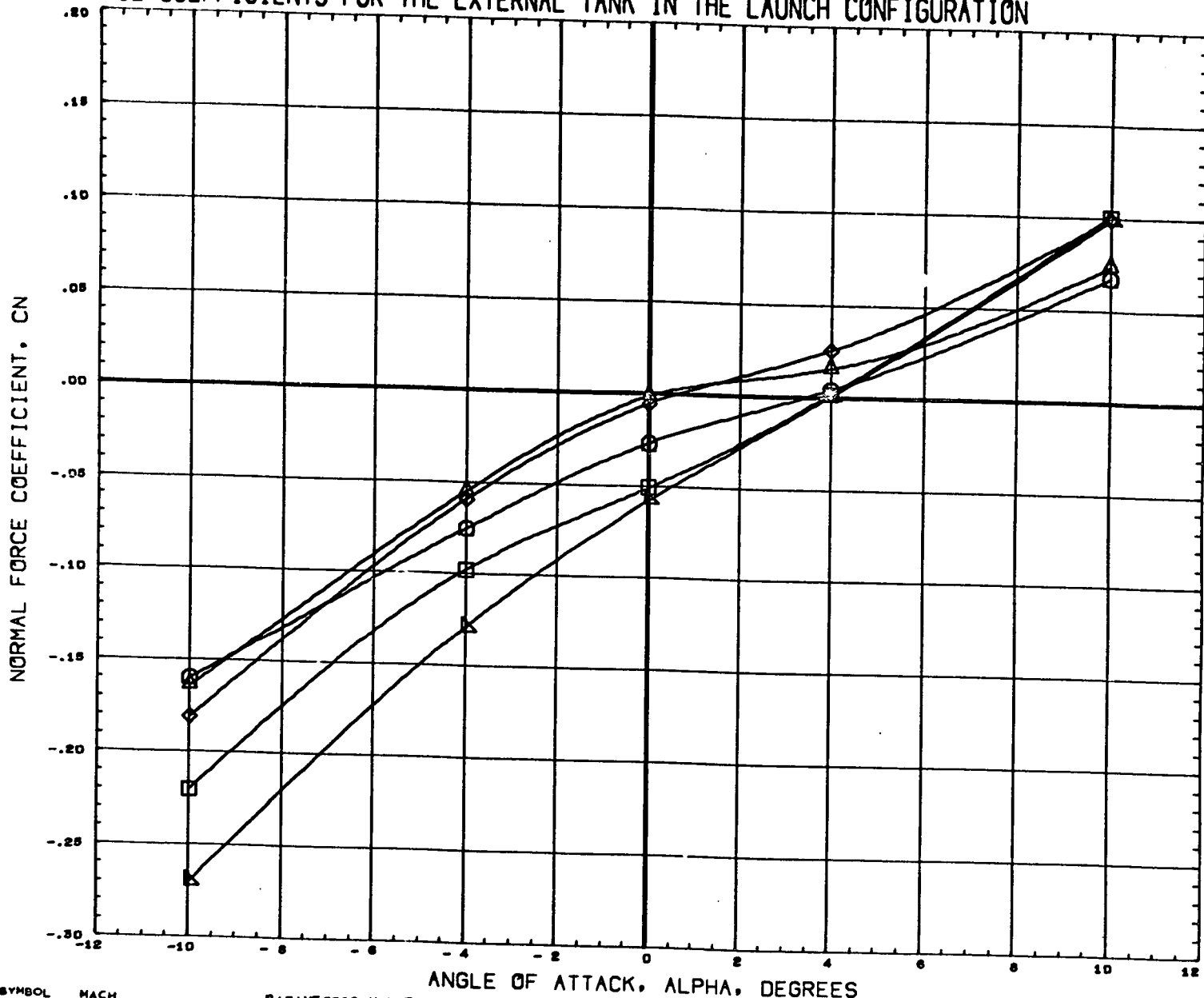
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(D70000)	MSFC 543-EXTERNAL TANK ALONE, T1
(D705TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(D70600)	MSFC 543-D49 ORBITER WITH EXTERNAL TANK, T101
(E701TK)	MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S101
(D702TK)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ORBINC	SRBGAP
0.000		
0.000		0.025
0.000	-1.500	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION	
SREF	7.8800 80. IN.
LREF	2.0280 INCHES
BREF	4.4600 INCHES
XMRP	4.2260 INCHES
YMRP	0.0000 INCHES
ZMRP	0.2480 INCHES
SCALE	0.0040 SCALE

MACH 1.96

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION

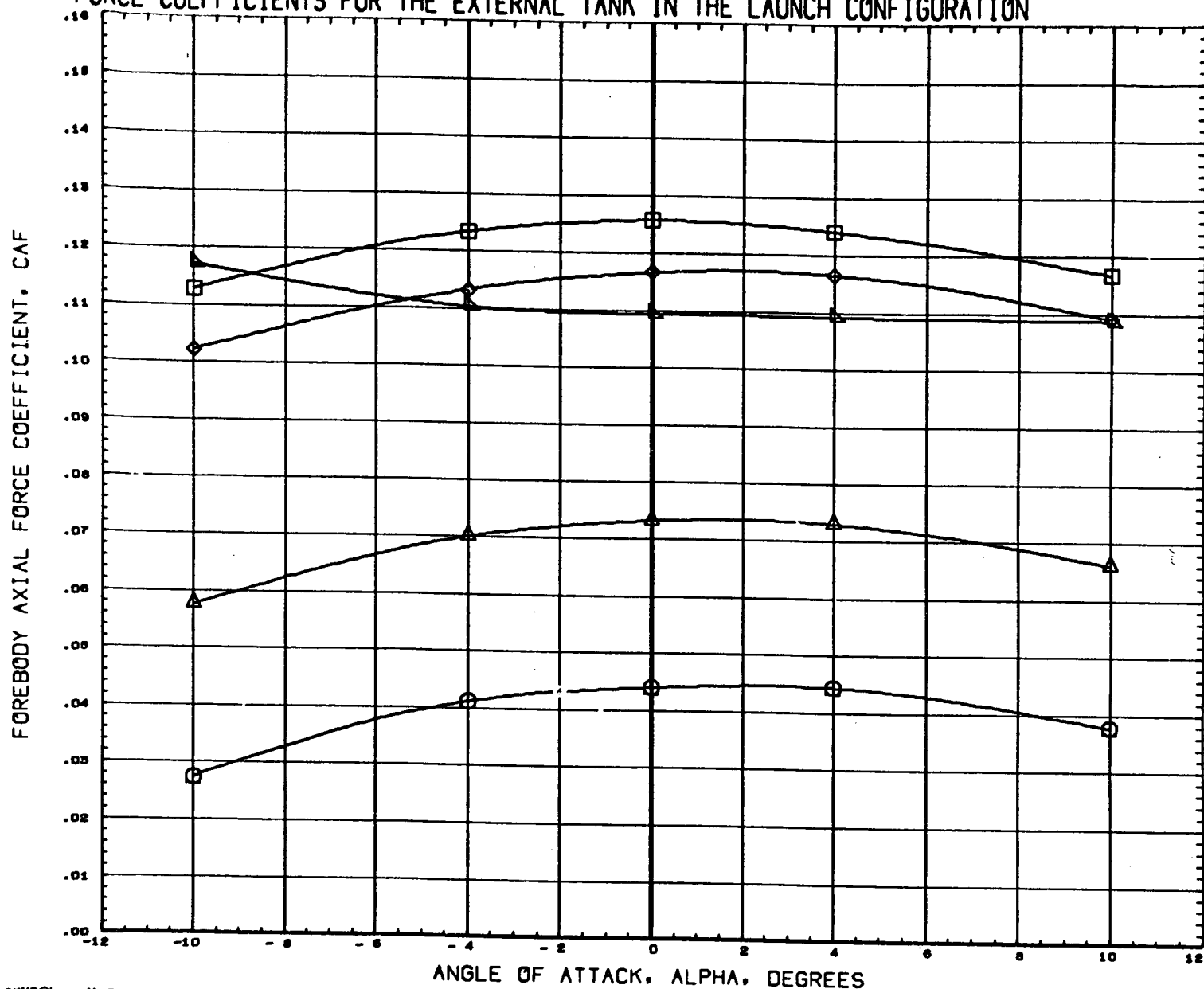


SYMBOL \diamond \square \circ \triangle \times
 MACH 0.800 0.950 1.200 1.460 1.960
 BETA 0.000 SRBGAP 0.025
 PARAMETRIC VALUES ORBINC - 1.500

DATA HIST. CODE 1#EC

REFERENCE INFORMATION
 SREF 7.8800 50. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION

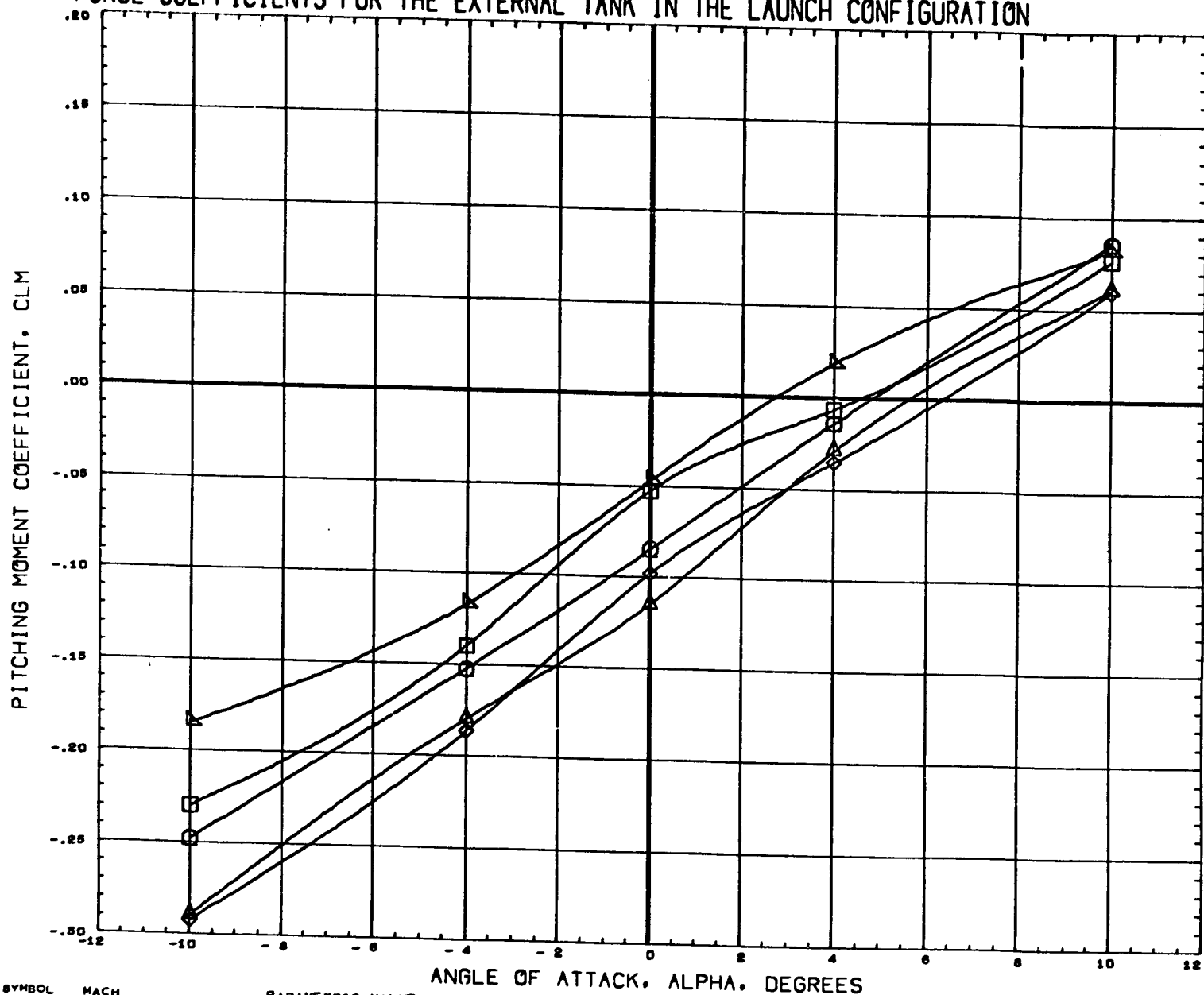


SYMBOL MACH
 0.800 BETA 0.000 ORBINC - 1.500
 0.950 SRBCAP 0.025
 1.200
 1.460
 1.960

DATA HIST. CODE 14EC

REFERENCE INFORMATION
 SREF 7.8800 80. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION



SYMBOL MACH

0.800 BETA 0.000 ORBINC - 1.500

0.950 SRBCAP 0.025

1.200

1.460

1.960

DATA HIST. CODE I#EC

REFERENCE INFORMATION

SREF 7.8800 89. IN.

LREF 2.0280 INCHES

BREF 4.4600 INCHES

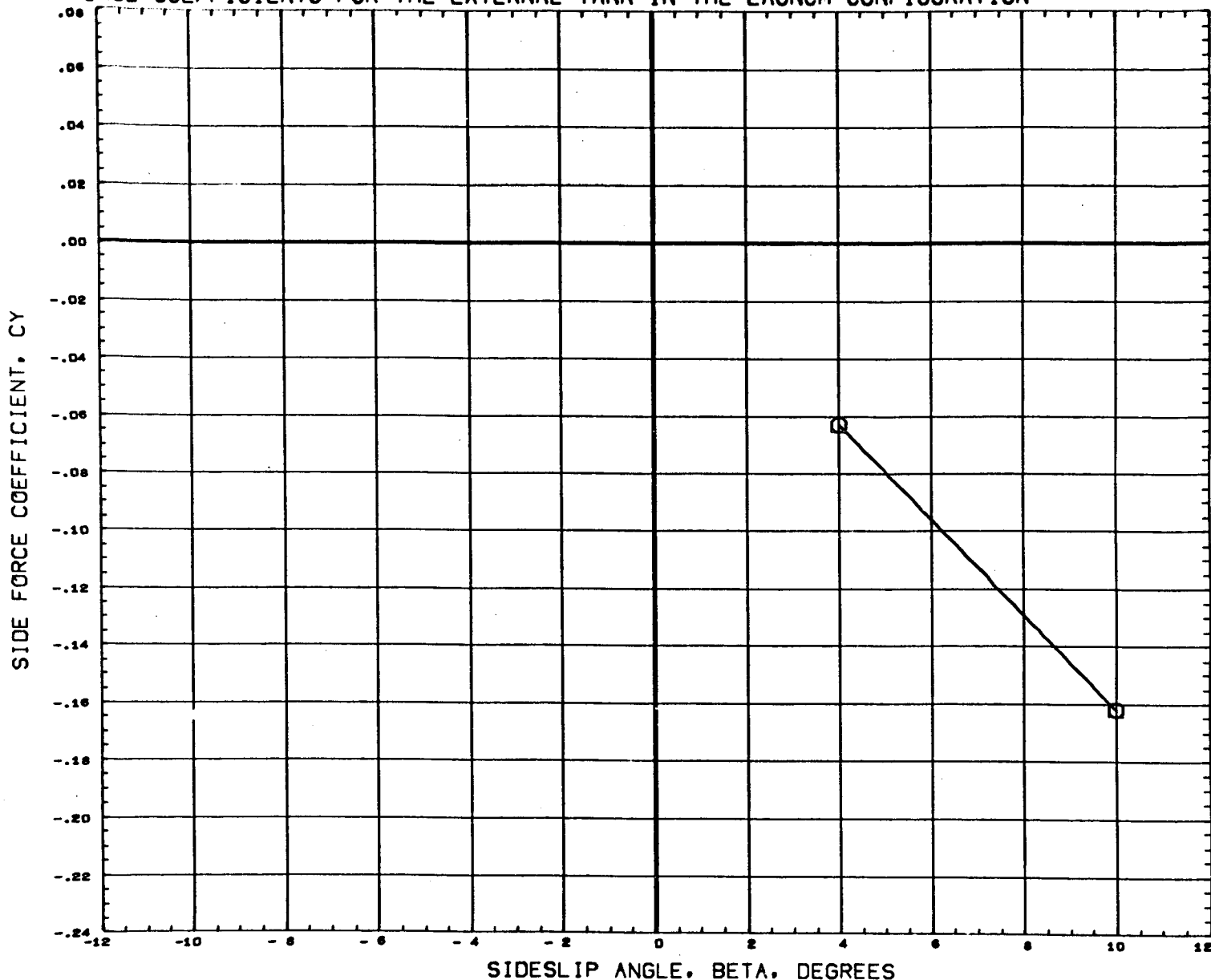
XHRP 4.2260 INCHES

YHRP 0.0000 INCHES

ZHRP 0.2480 INCHES

SCALE 0.0040 SCALE

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(E704TK)  MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (E703TK)  DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	ORBNIC	SRBGAP
6.000	-1.500	0.025
0.000	-1.500	0.025

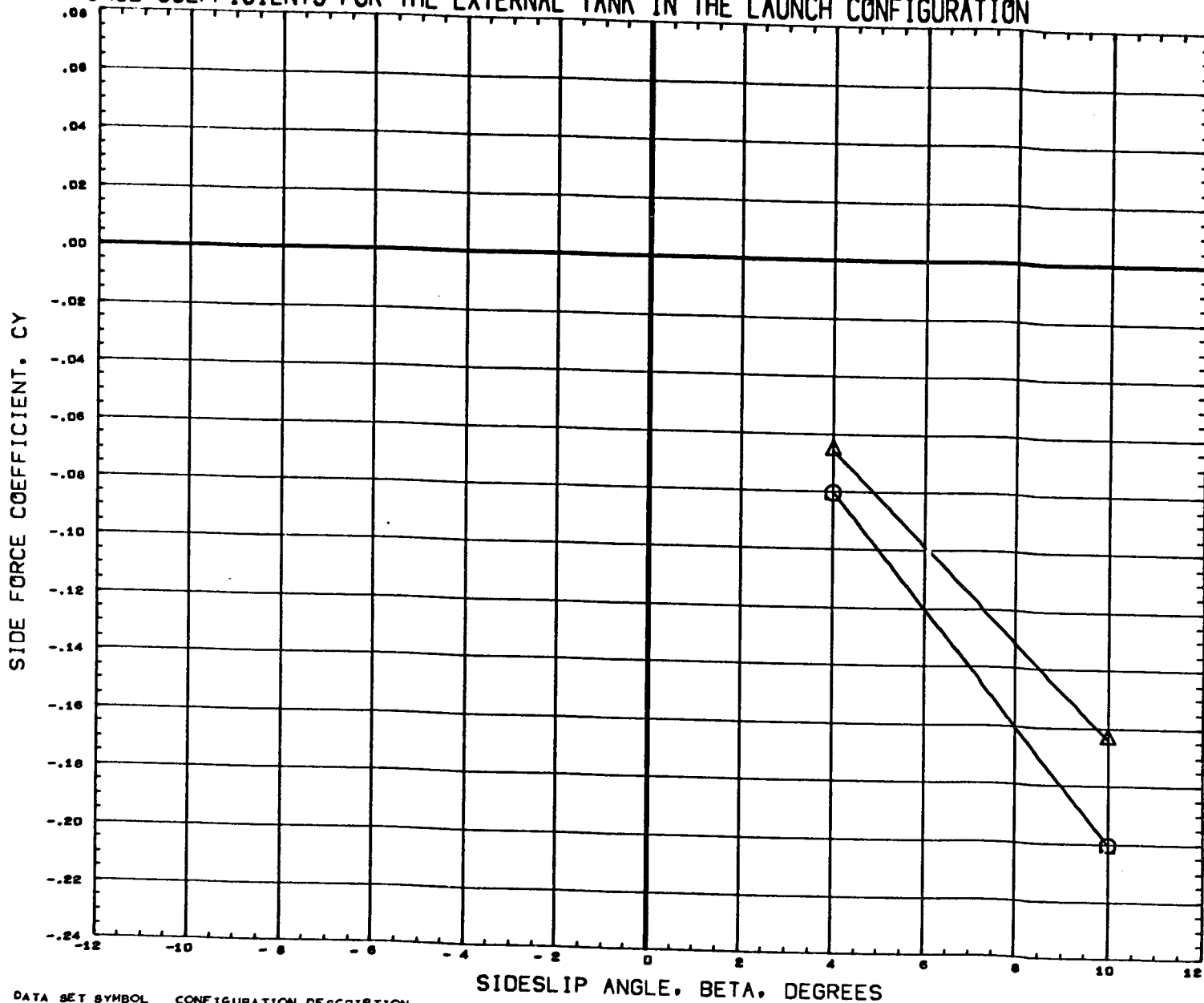
REFERENCE INFORMATION

SREF	7.8800	99.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE



MACH .95

PAGE 903

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(E704TK)  MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (E705TK)  MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

ALPHA	ORBINC	SRBCAP
0.000	-1.500	0.025
0.000	-1.500	0.025

REFERENCE INFORMATION:

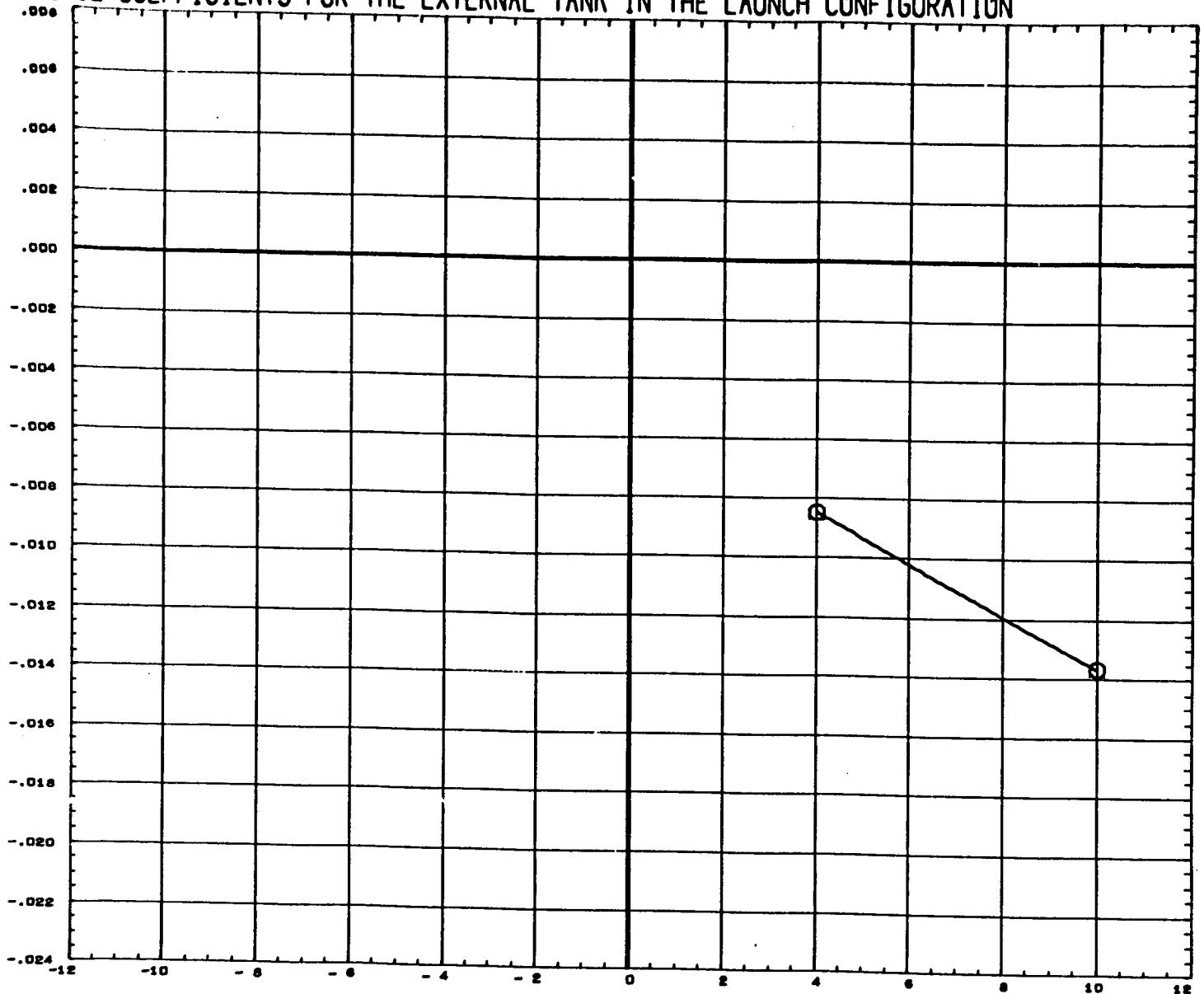
SREF	7.8800	Sq. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 904

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



SIDESLIP ANGLE, BETA, DEGREES

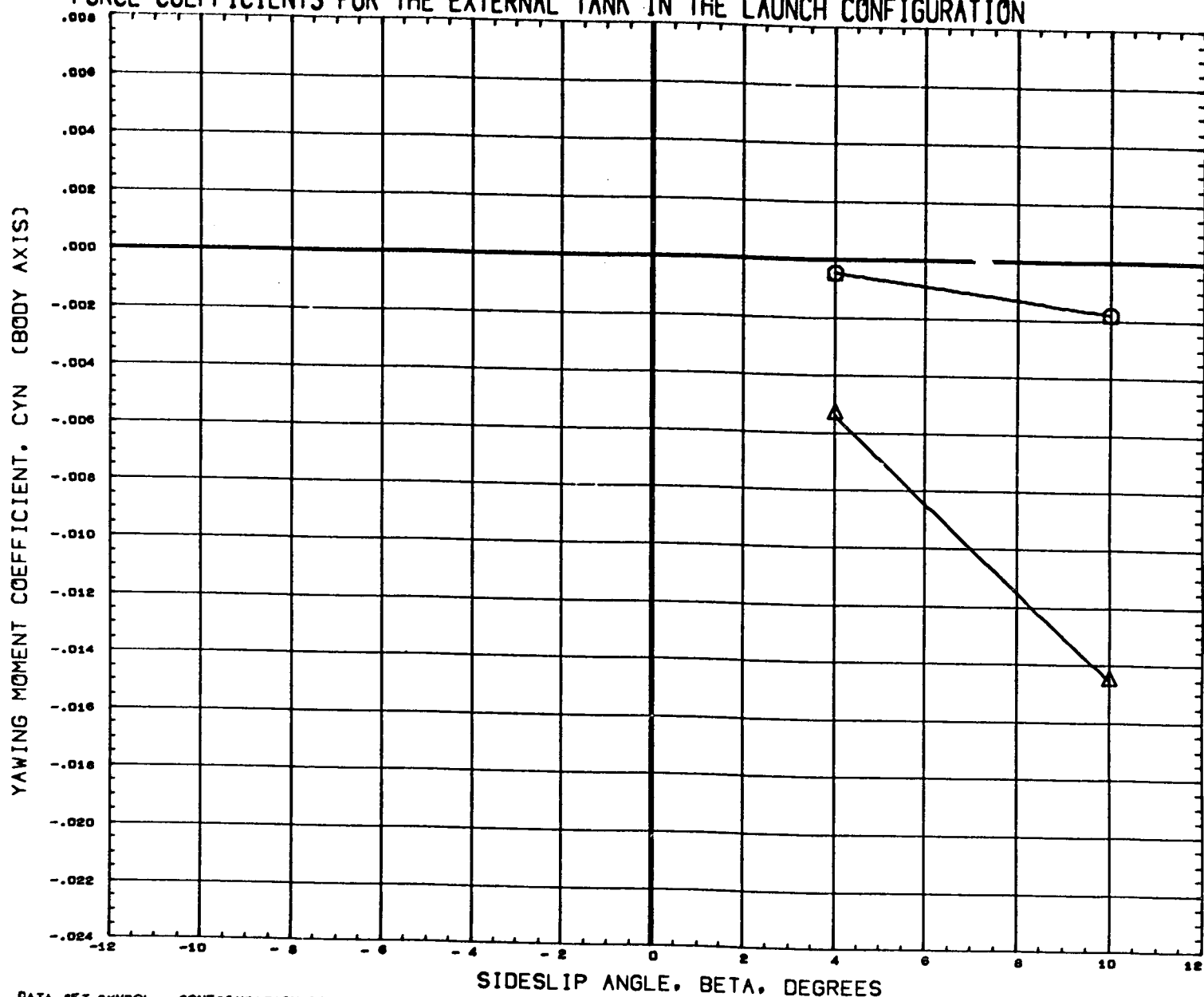
DATA SET SYMBOL (E704TK) CONFIGURATION DESCRIPTION MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
(E703TK) DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	ORBINC	SRBGAP
6.000	-1.500	0.025
0.000	-1.500	0.025

REFERENCE INFORMATION		
SREF	7.6800	90 IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.004	SCALE

MACH .95

FORCE COEFFICIENTS FOR THE EXTERNAL TANK IN THE LAUNCH CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	ORBINC	SRBGAP
(E704TK) \bigcirc	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101	0.000	-1.500	0.025
(E705TK) \triangle	MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101	0.000	-1.500	0.025

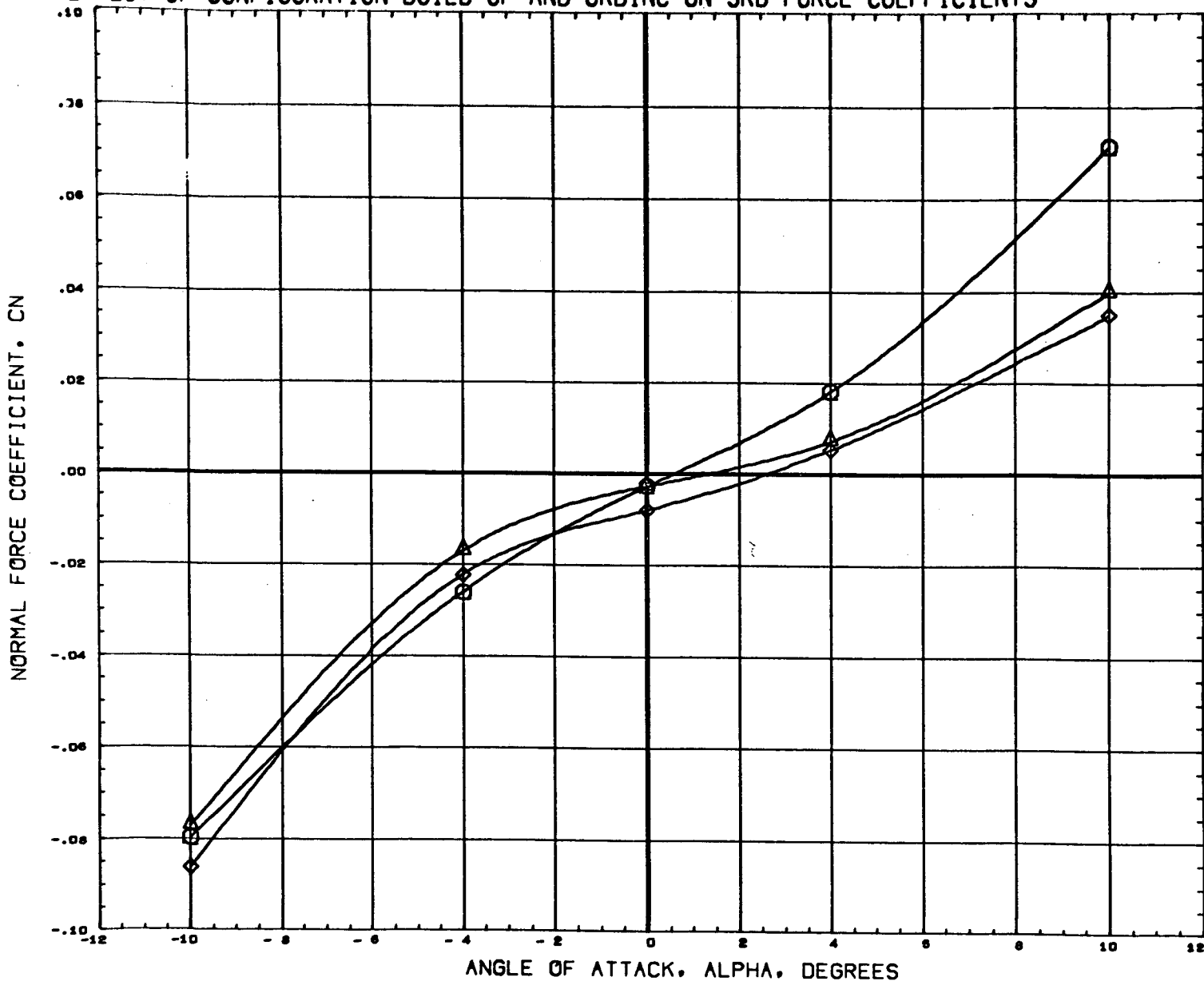
REFERENCE INFORMATION

SREF	7.6800	50.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 906

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON SRB FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (D705SH) ○ MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1
 (E701SH) △ MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
 (D702SH) ◇ MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

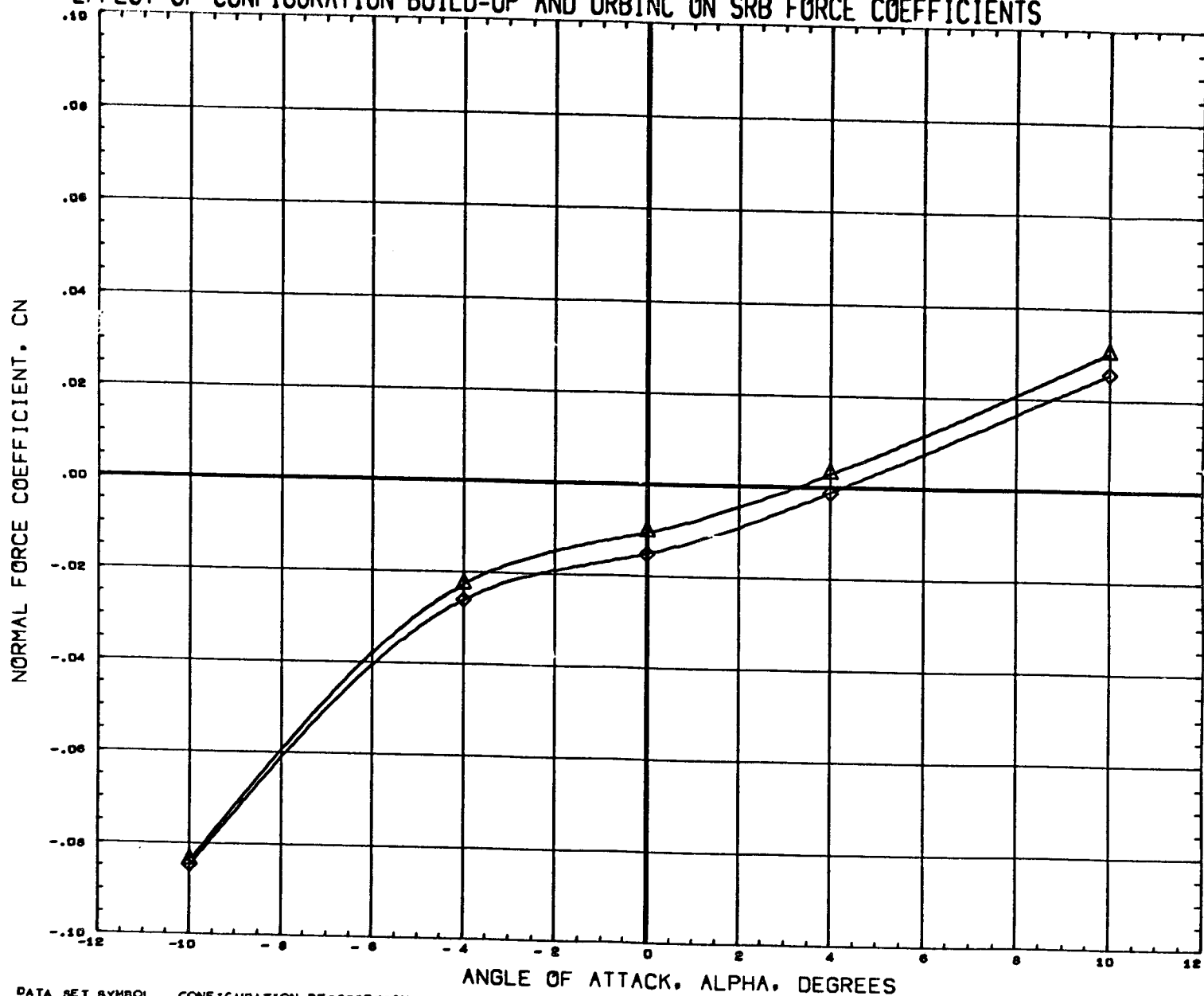
BETA	ORBINC	SRBGAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION		
SREF	7.8800	80. IN.
LREF	2.0280	INCHES
SREF	4.4600	INCHES
XMRP	4.2200	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 907

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON SRB FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(D705SH) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (E701SH) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (D702SH) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

BETA	ORBINC	SRBGAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION

SREF	7.8800	89.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON SRB FORCE COEFFICIENTS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(D7058H) \bigcirc MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1
 (E7016H) \triangle MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
 (D7026H) \diamond MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

BETA	ORBINC	SRBGAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

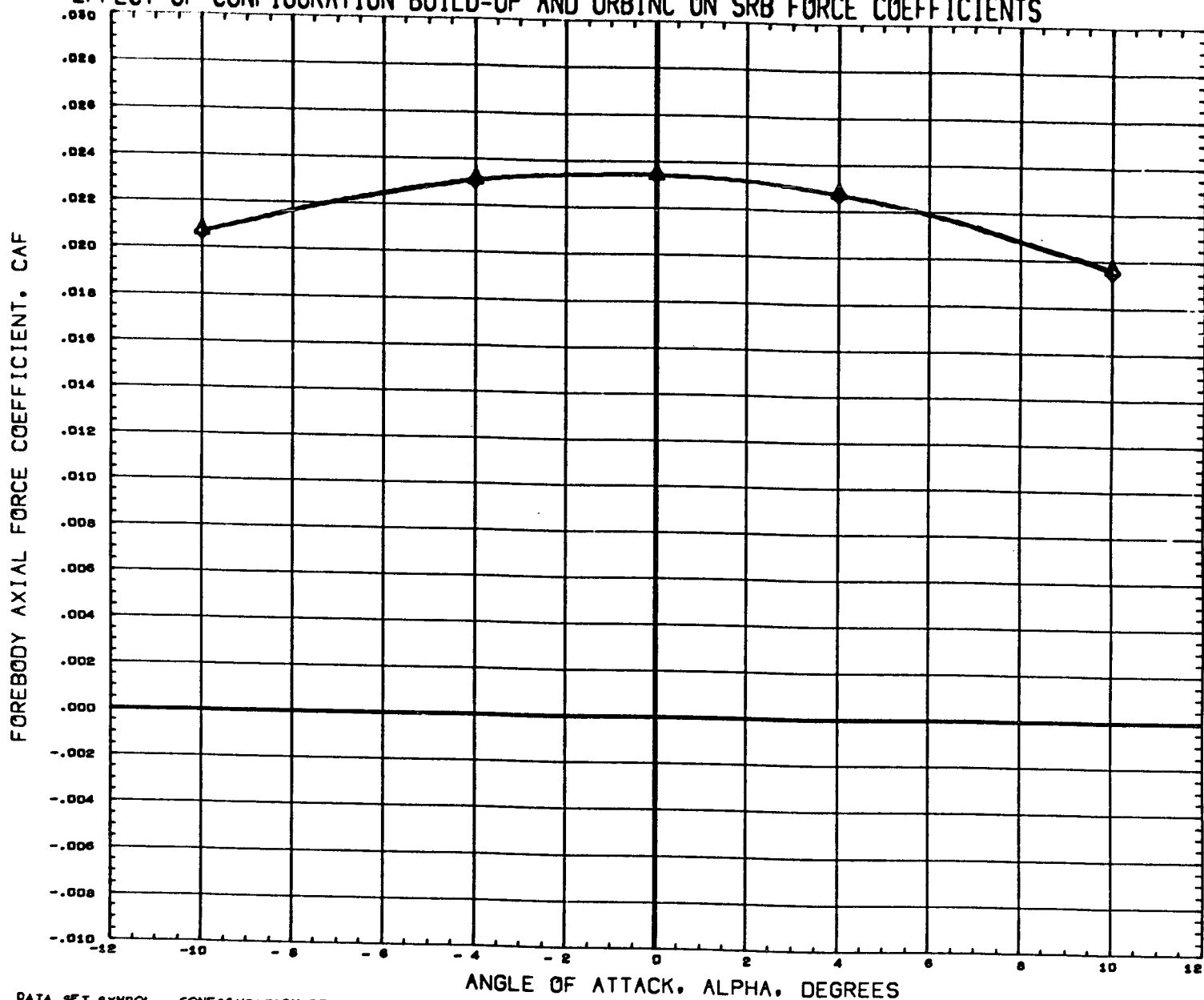
REFERENCE INFORMATION

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LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SC/IN

MACH 1.20

PAGE 909

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON SRB FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(D705SM) DATA NOT AVAILABLE FOR ALL CONDITIONS

(E701SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

(D702SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

BETA	ORBINC	SRBGAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION

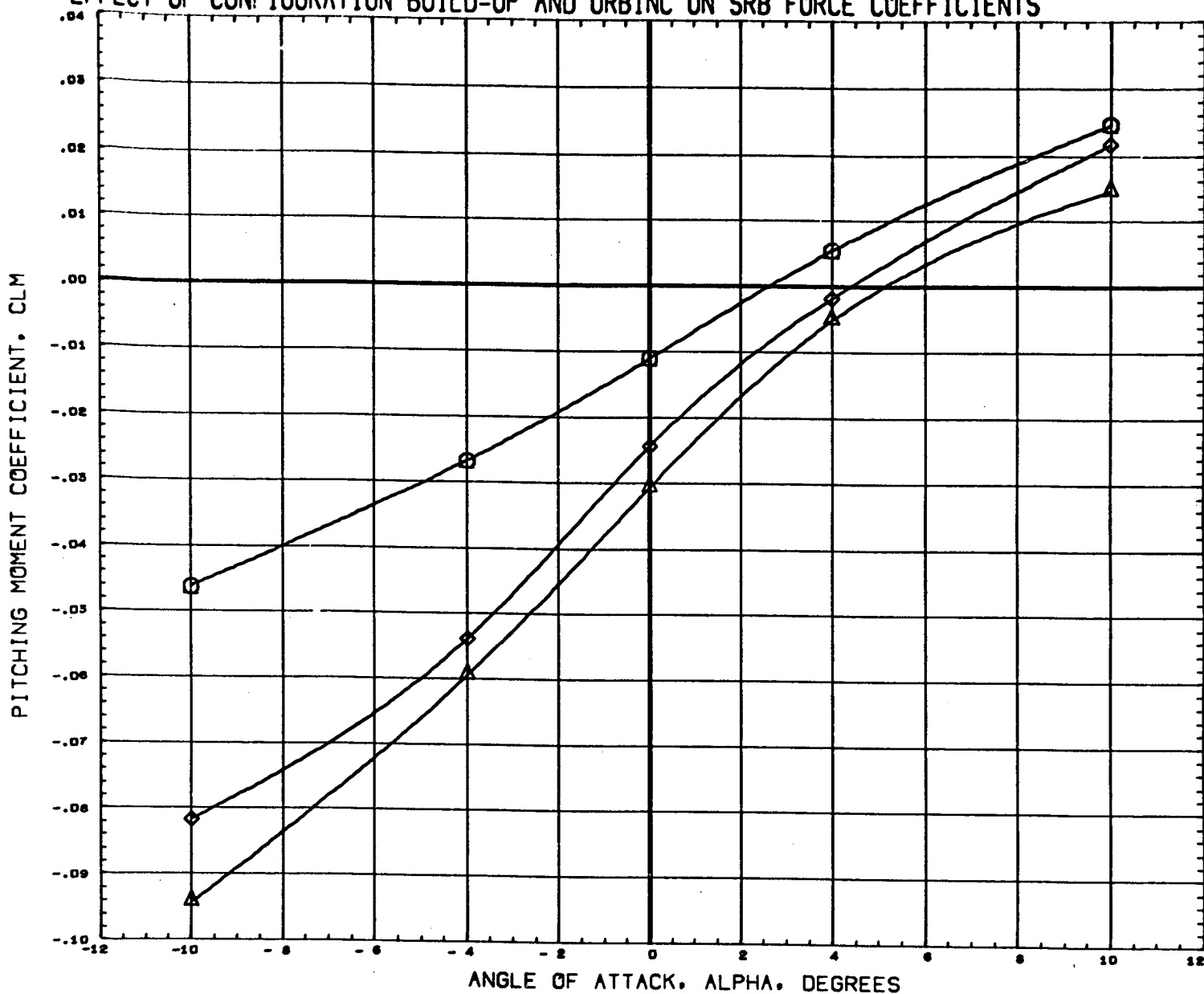
SREF	7.8800	90.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH

1.46

PAGE 910

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON SRB FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(D705SM) MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1
 (E701SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
 (D702SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

BETA	ORBINC	SRBCAP
0.000	0.025	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

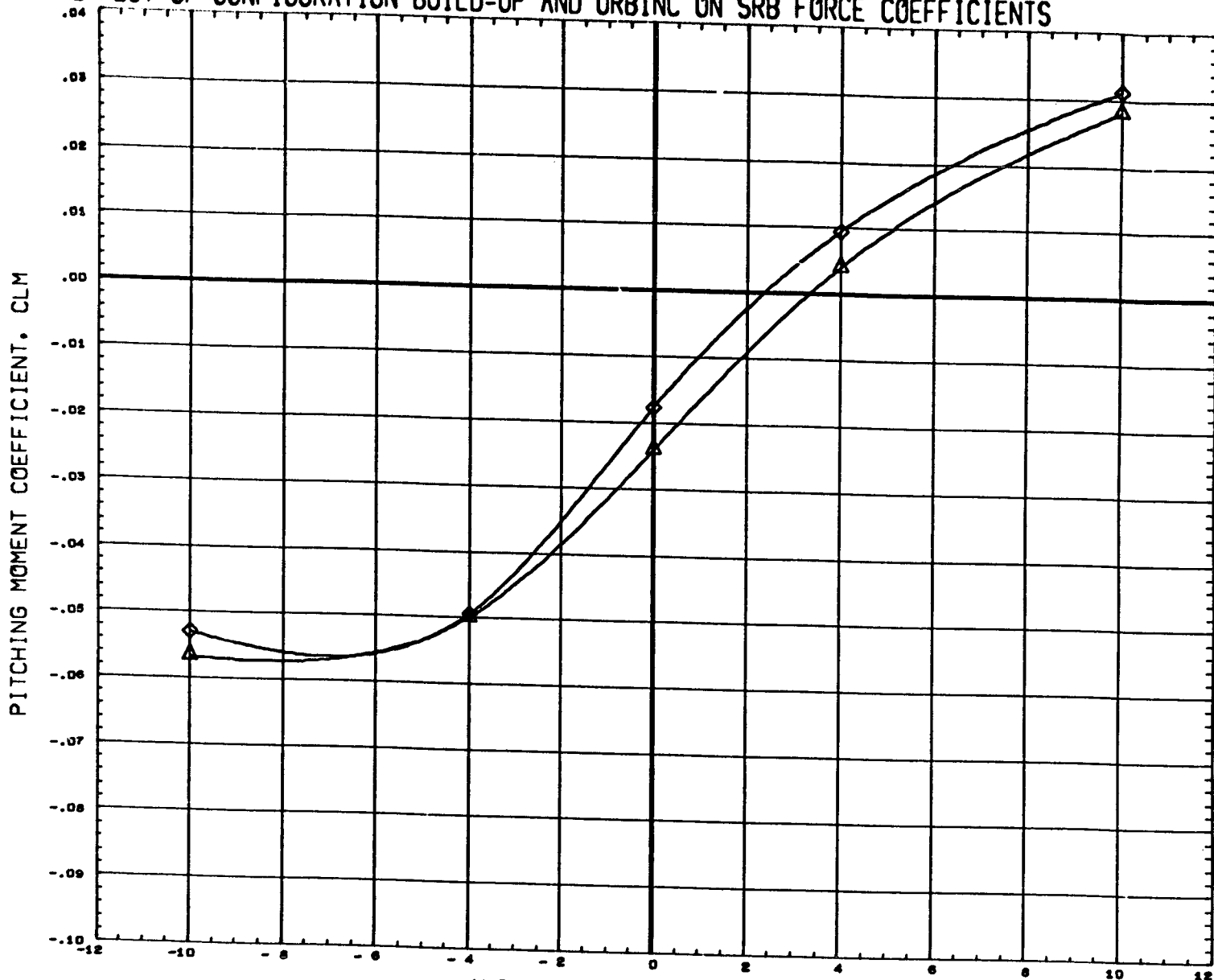
REFERENCE INFORMATION

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LREF	2.0280	INCHES
BREF	4.4800	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 911

EFFECT OF CONFIGURATION BUILD-UP AND ORBINC ON SRB FORCE COEFFICIENTS



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (D705SM) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (E701SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (D702SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

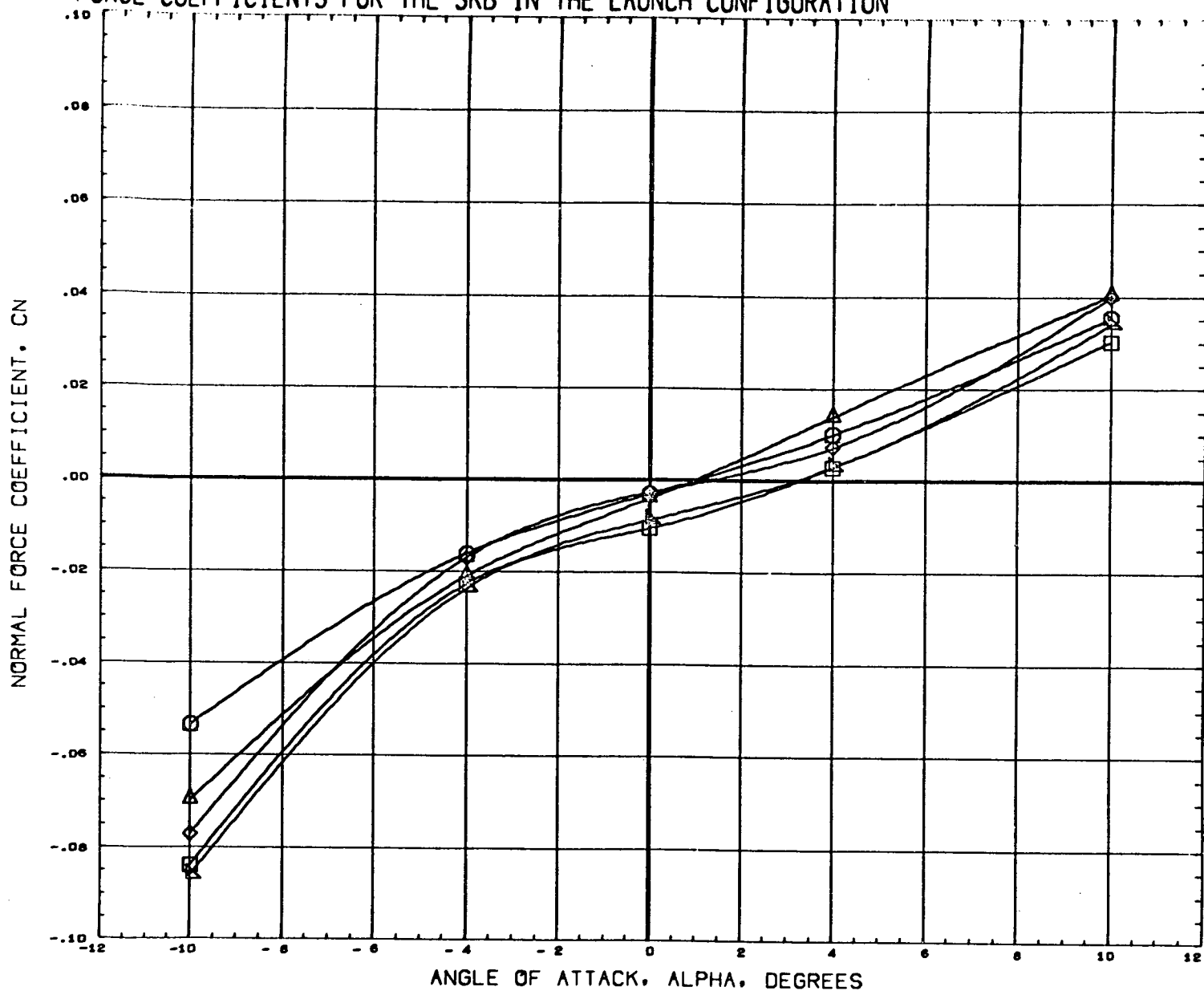
BETA	ORBINC	SRBCAP
0.000	0.000	0.025
0.000	-1.500	0.025
0.000	0.000	0.025

REFERENCE INFORMATION

SREF	7.8800	30.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.46

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION



SYMBOL MACH

0.800 BETA 0.000 ORBINC - 1.500

0.950 SRBGAP 0.025

1.200

1.460

1.960

DATA HIST. CODE 1#EC

REFERENCE INFORMATION

SREF 7.8800 50. IN.

LREF 2.0280 INCHES

BREF 4.4600 INCHES

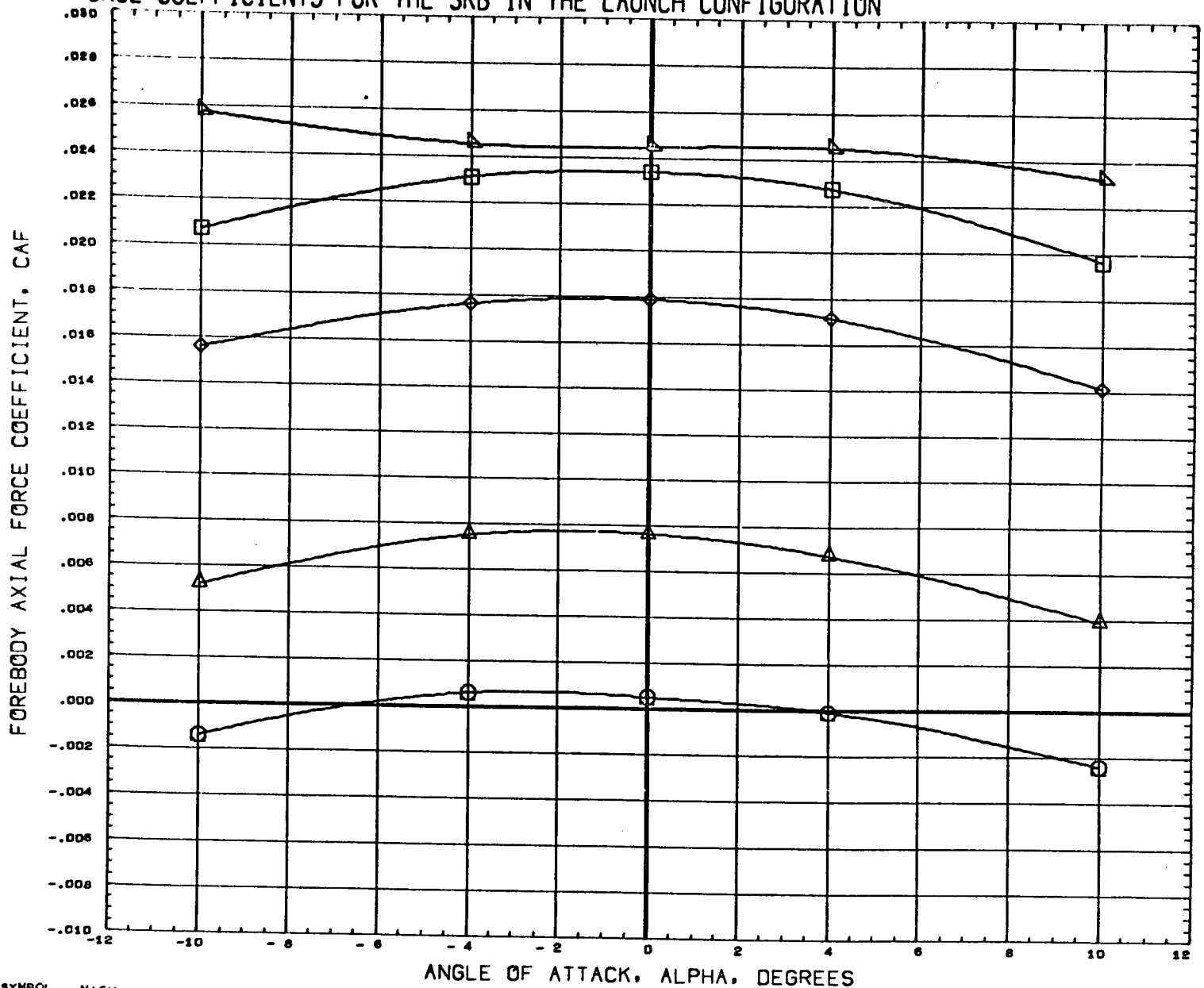
XMRP 4.2260 INCHES

YMRP 0.0000 INCHES

ZMRP 0.2480 INCHES

SCALE 0.0040 SCALE

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION

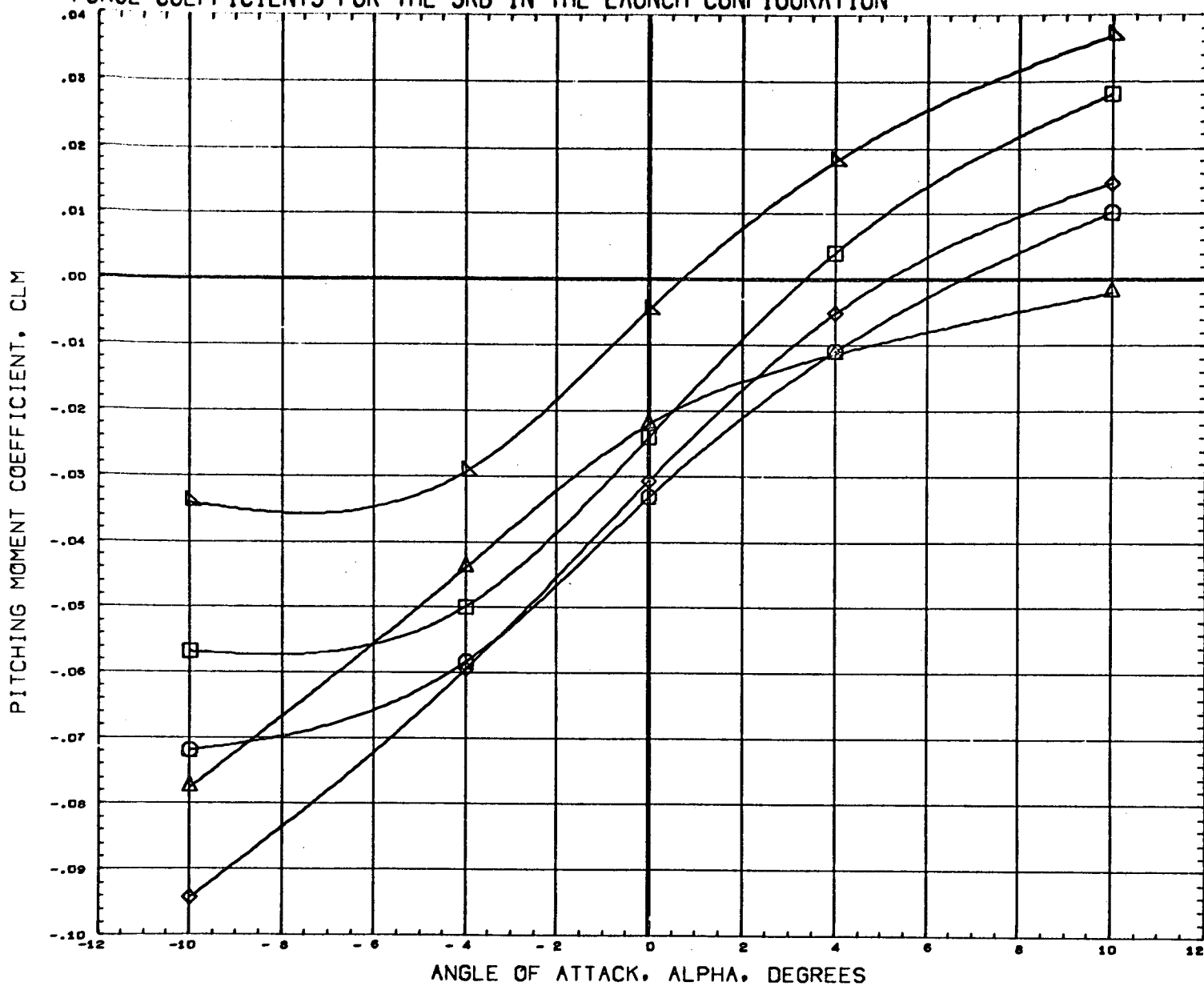


SYMBOL MACH
 0.800 BETA 0.000 ORBINC - 1.500
 0.950 SRBGAP 0.025
 1.200
 1.460
 1.960

DATA HIST. CODE I#EC

REFERENCE INFORMATION
 SREF 7.8800 SQ. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2260 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION

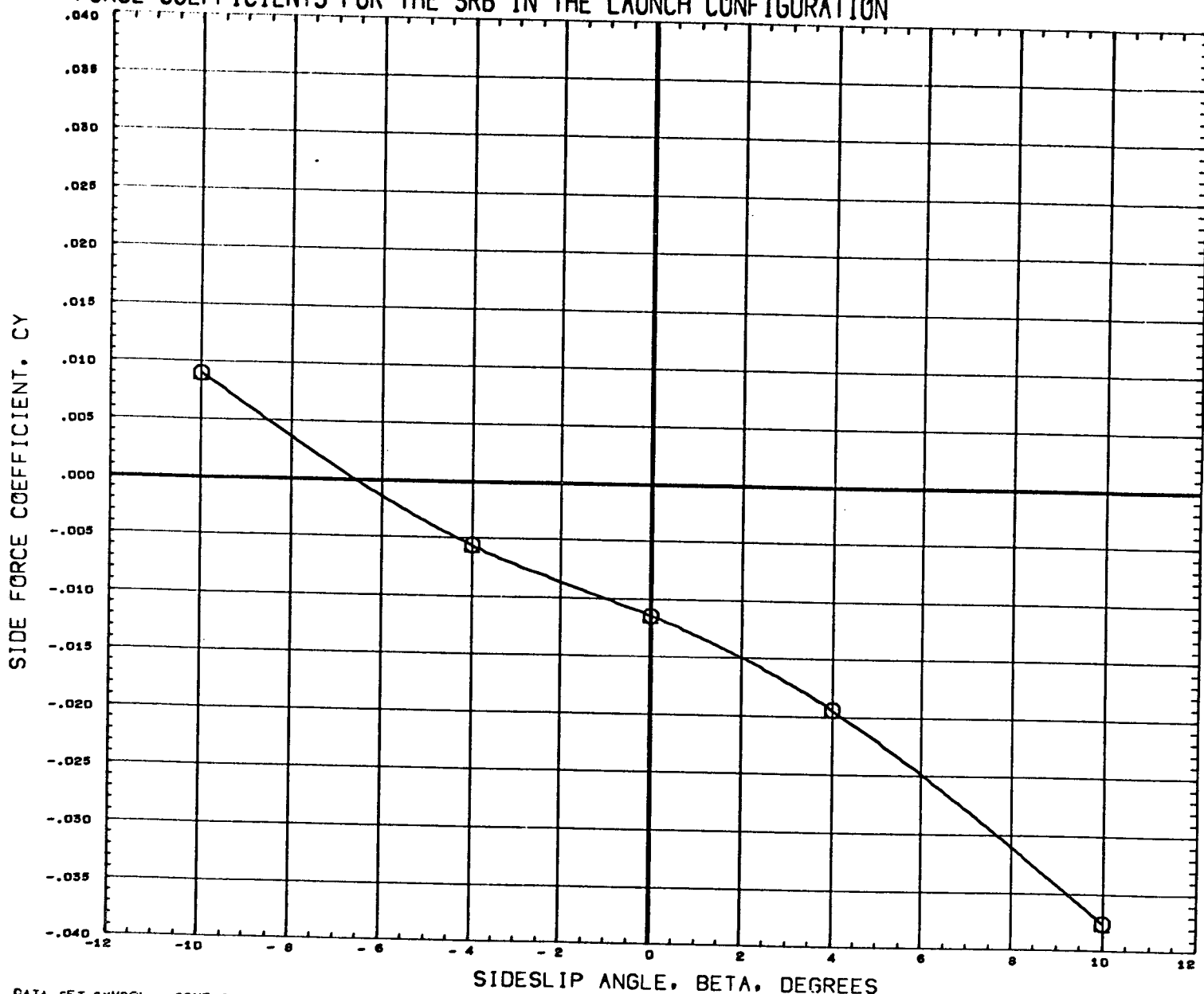


SYMBOL ○ ◇ △ □ ▽	MACH	PARAMETRIC VALUES		
	0.800	BETA	0.000	ORBINC - 1.500
	0.950	SRBCAP	0.025	
	1.200			
	1.460			
	1.960			

DATA HIST. CODE 1#EC

REFERENCE INFORMATION		
SREF	7.8800	59. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION



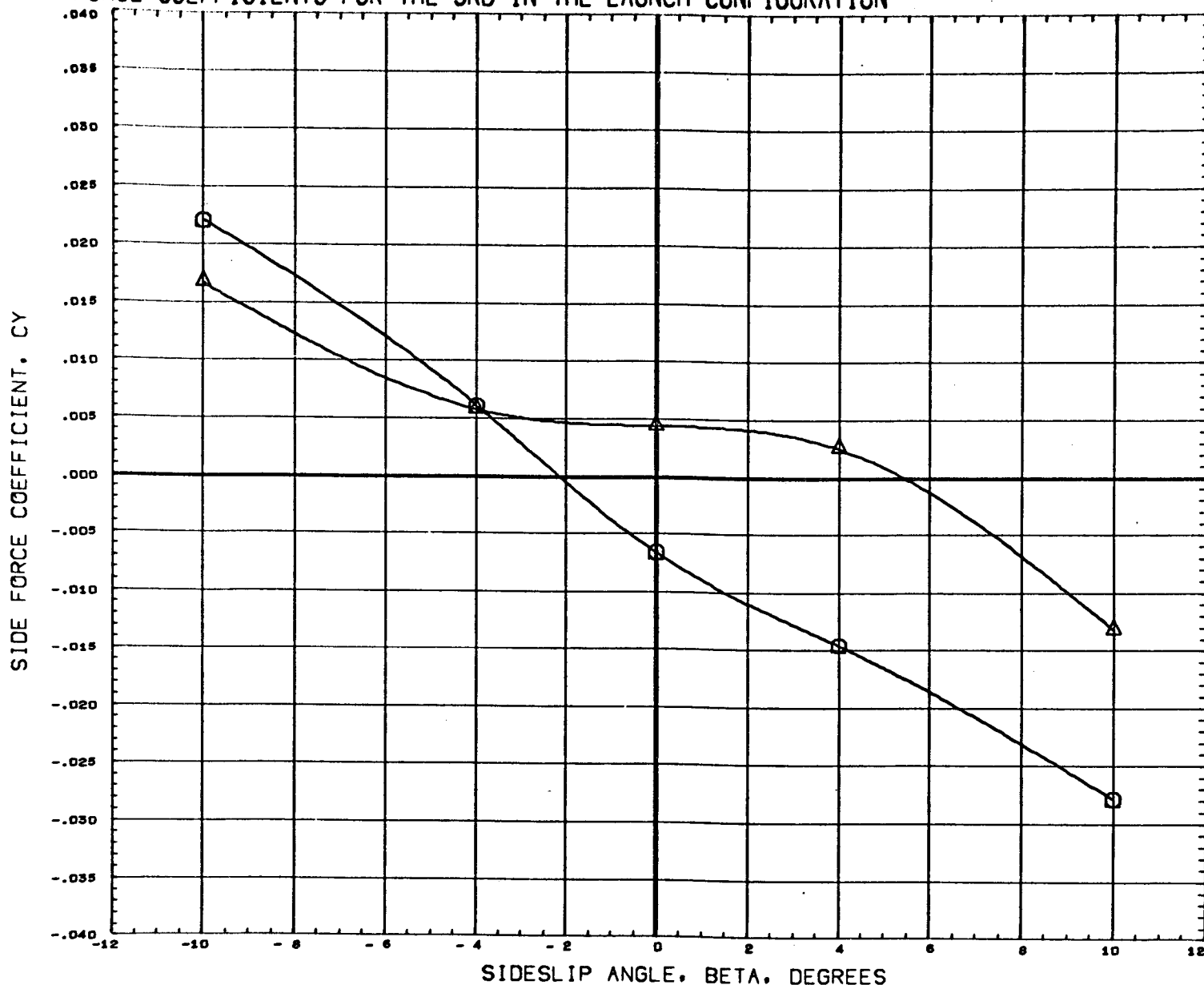
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (D704SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (D703SM) DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	ORBINC	SRBGAP
6.000	-1.500	0.025
0.000	-1.500	0.025

REFERENCE INFORMATION		
SREF	7.8800	sq. in.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(D704SH) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

(D703SH) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S101

ALPHA	ORBINC	SRBCAP
6.000	-1.500	0.025
0.000	-1.500	0.025

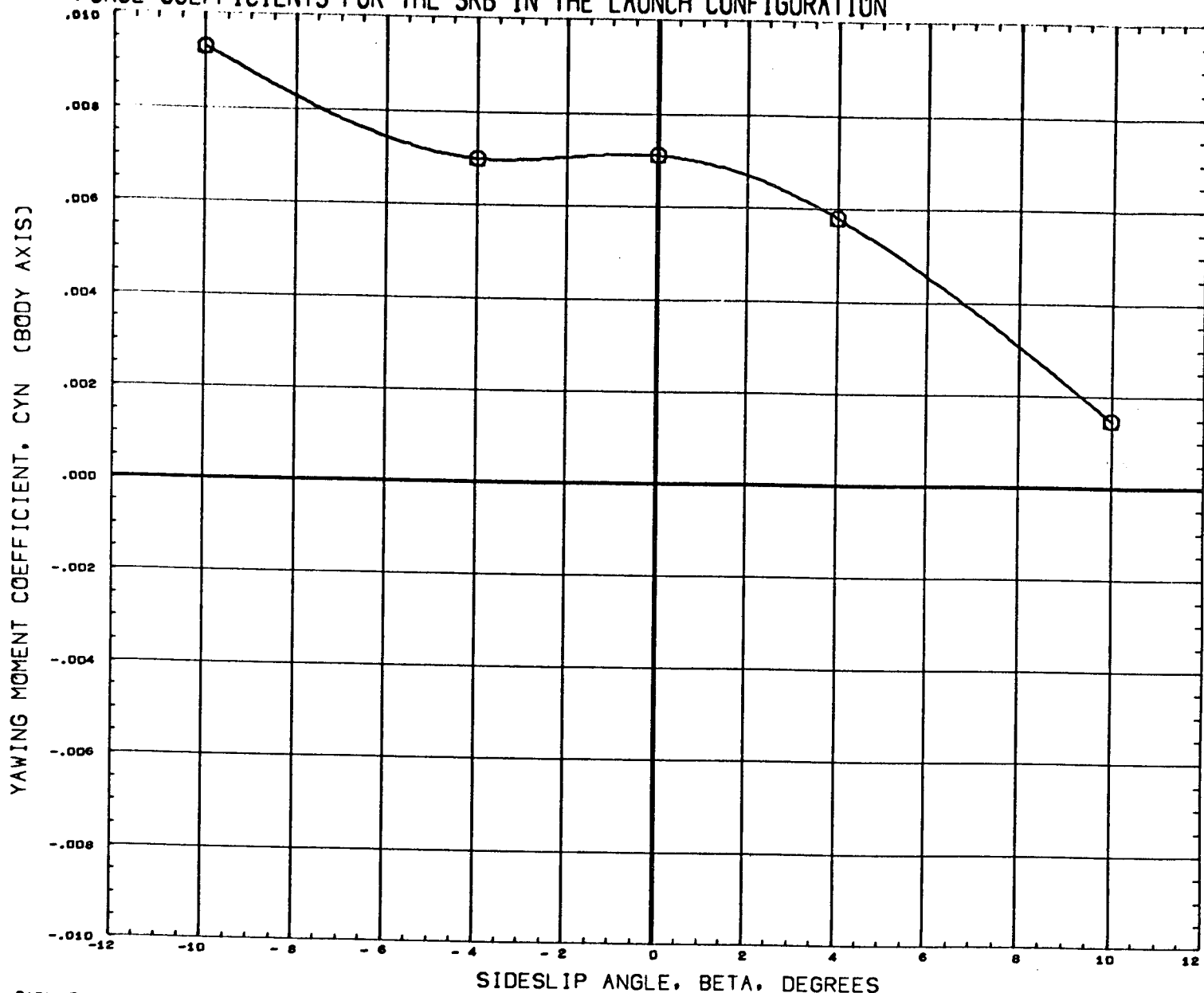
REFERENCE INFORMATION

SREF	7.8800	50. IN.
LREF	2.0260	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2460	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 917

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (D7D4SH)  MSFC 543-D49 LAUNCH CONFIG W/O ABORT SRM, T1S101
 (D7D3SH) DATA NOT AVAILABLE FOR ALL CONDITIONS

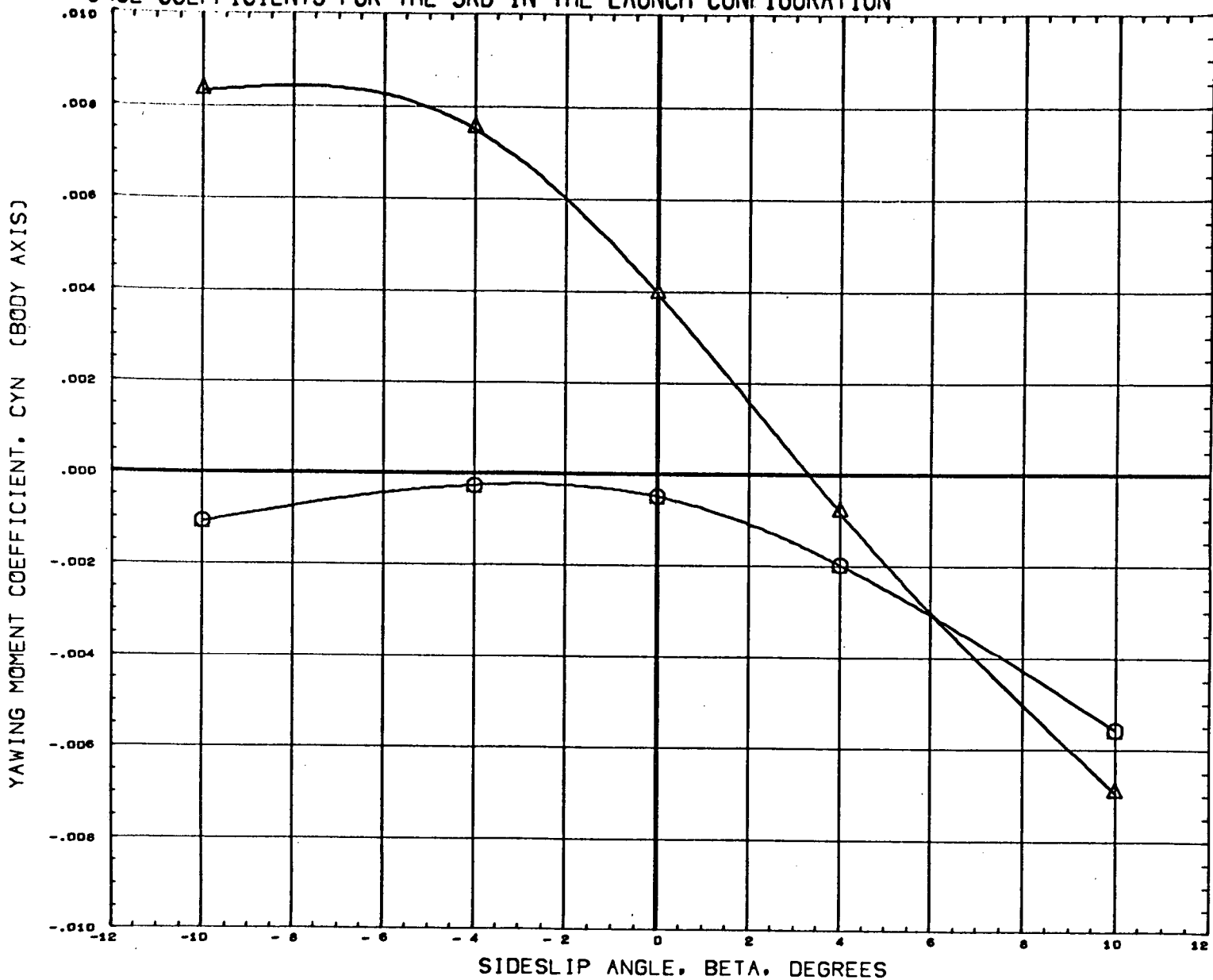
ALPHA	ORBIT	SRBGAP
6.000	-1.500	0.025
0.000	-1.500	0.025

REFERENCE INFORMATION		
SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH .95

PAGE 918

FORCE COEFFICIENTS FOR THE SRB IN THE LAUNCH CONFIGURATION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(D7D4SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1
 (D7D3SM) MSFC 543-049 LAUNCH CONFIG W/O ABORT SRM, T1S1O1

ALPHA	ORBINC	SRBCAP
6.000	-1.500	0.025
0.000	-1.500	0.025

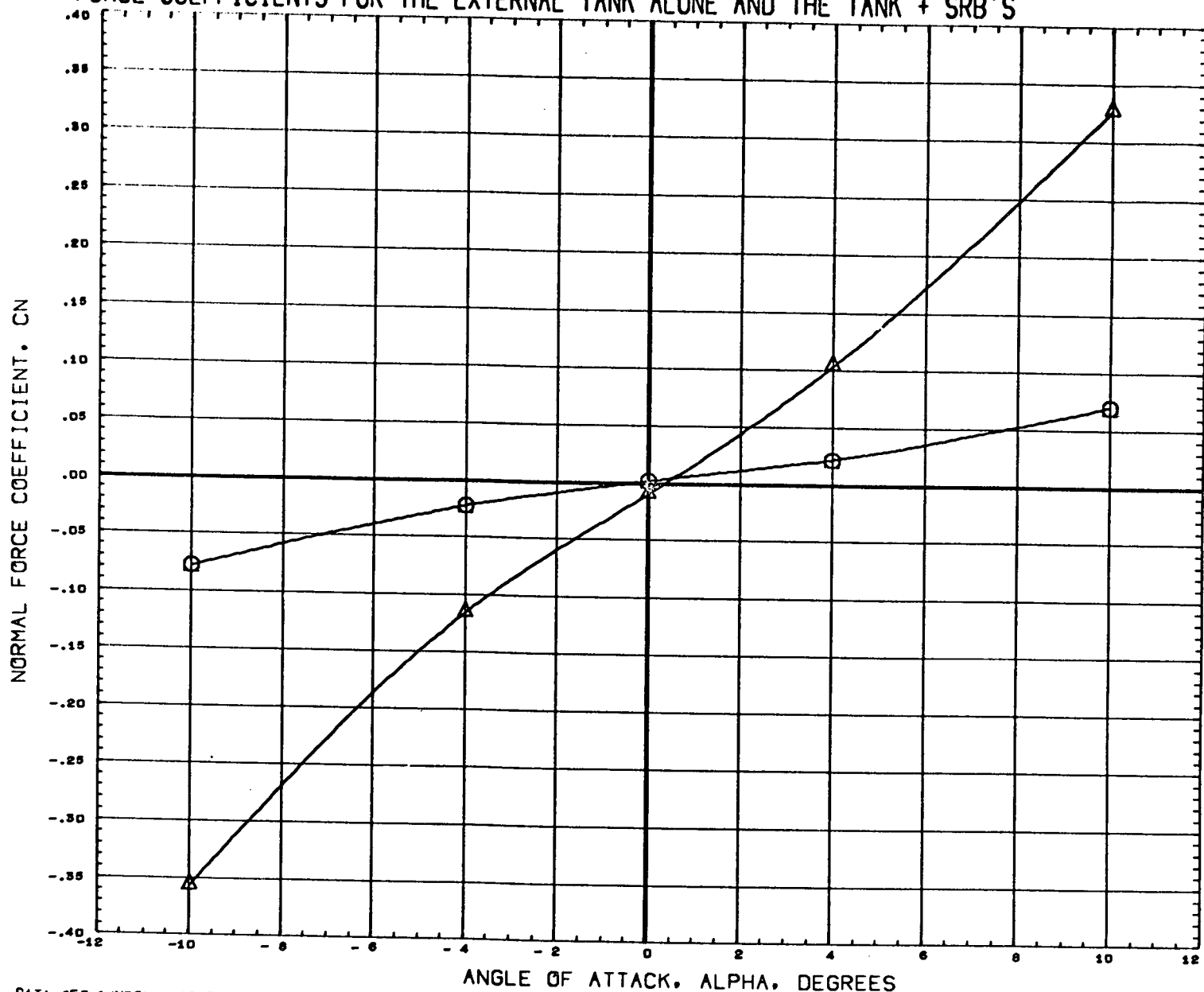
REFERENCE INFORMATION

SREF	7.8800	59.1N.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2260	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 919

FORCE COEFFICIENTS FOR THE EXTERNAL TANK ALONE AND THE TANK + SRB'S



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(E70000) MSFC 543-EXTERNAL TANK ALONE, T1
 (E70500) MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1

BETA ORBINC SRBGAP
 0.000
 0.000 0.025

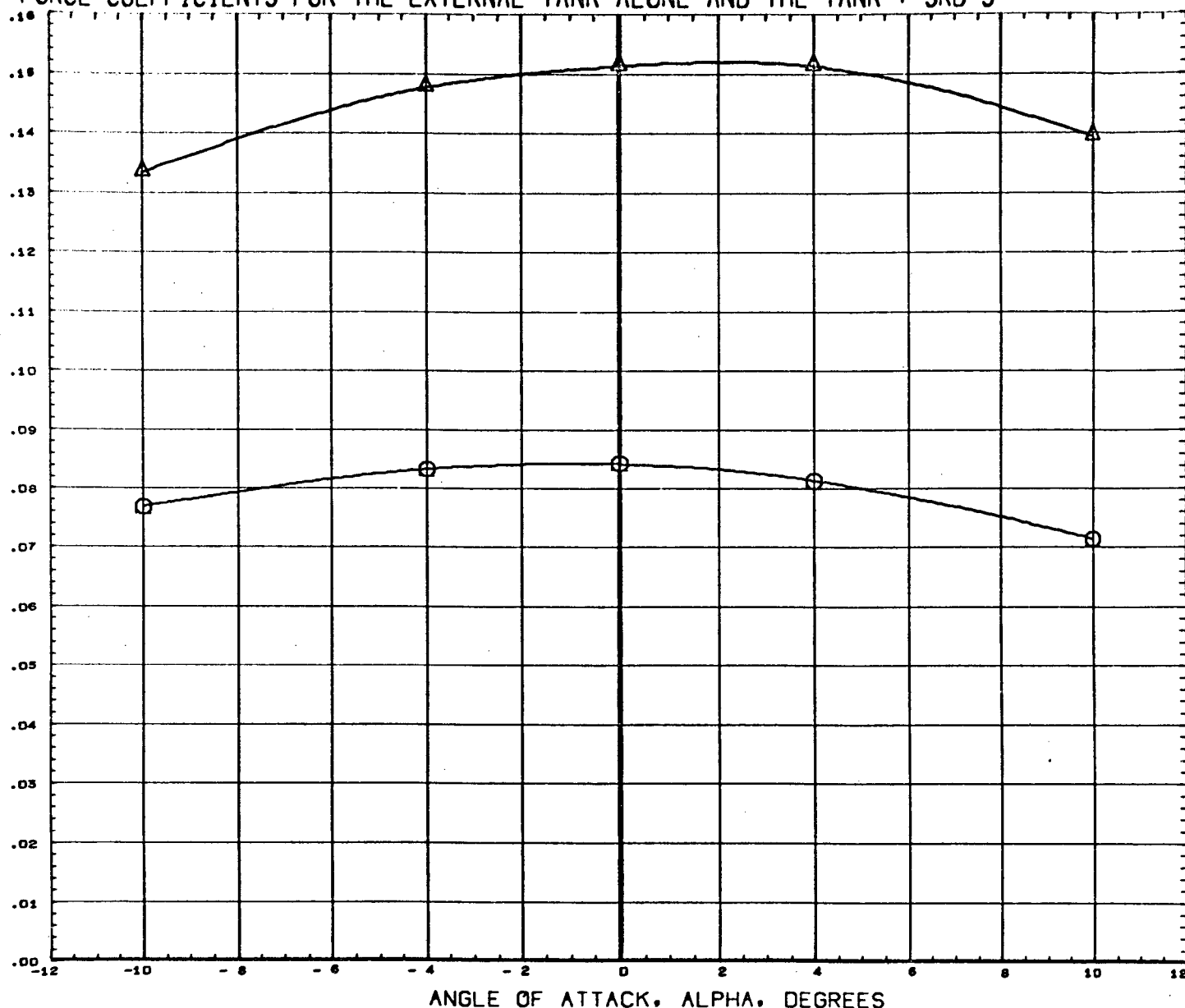
REFERENCE INFORMATION

SREF	7.8800	50. IN.
LREF	2.0280	INCHES
BREF	4.4600	INCHES
XMRP	4.2280	INCHES
YMRP	0.0000	INCHES
ZMRP	0.2480	INCHES
SCALE	0.0040	SCALE

MACH 1.20

PAGE 920

FORCE COEFFICIENTS FOR THE EXTERNAL TANK ALONE AND THE TANK + SRB'S



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(E70000) MSFC 543-EXTERNAL TANK ALONE, T1
 (E70500) MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1

BETA ORBINC SRBGAP

0.000
 0.000 0.025

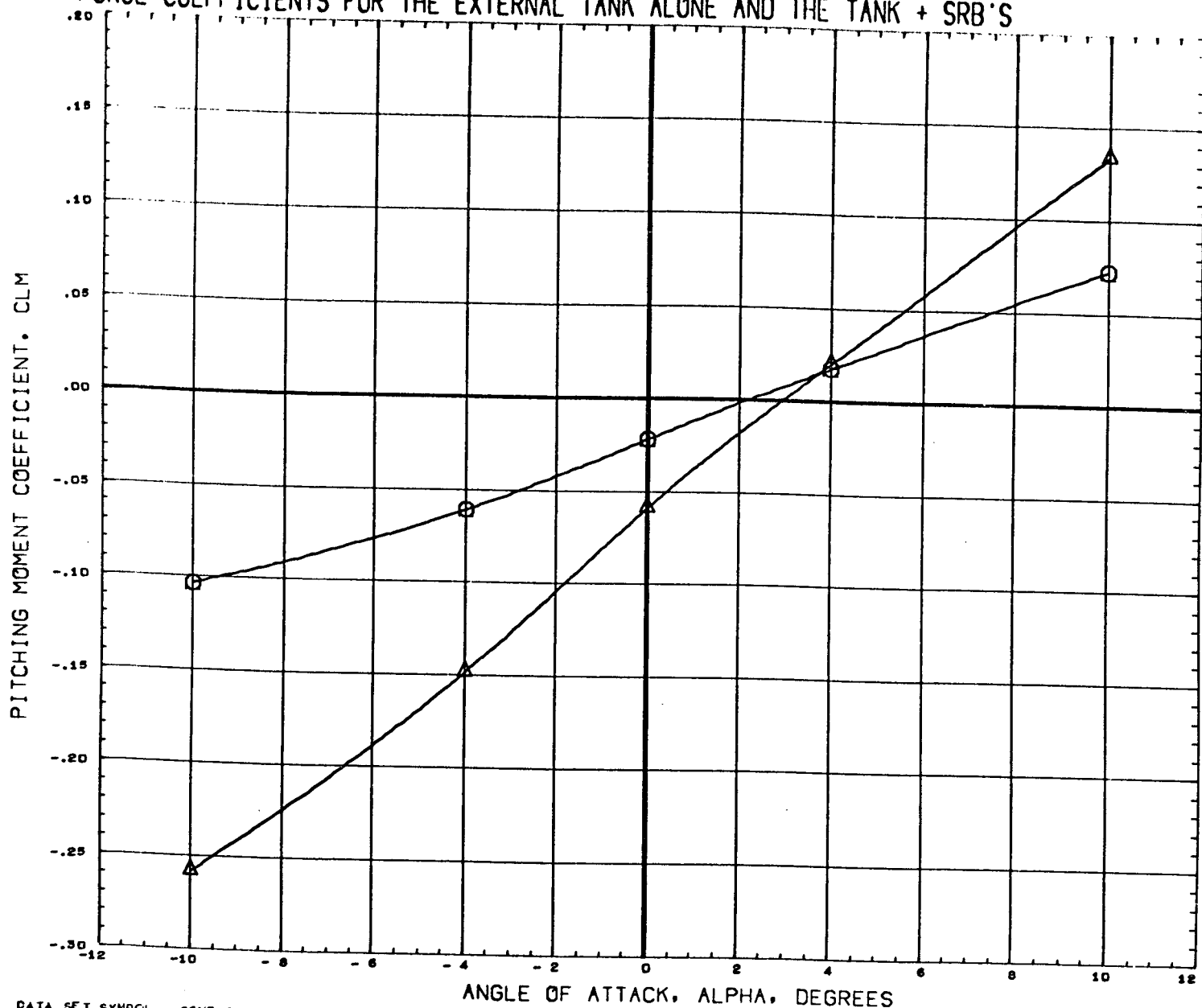
REFERENCE INFORMATION

SREF 7.8800 59. IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2280 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.20

PAGE 921

FORCE COEFFICIENTS FOR THE EXTERNAL TANK ALONE AND THE TANK + SRB'S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E70000) Q MSFC 543-EXTERNAL TANK ALONE, T1
 (E70500) A MSFC 543-EXTERNAL TANK WITH SRB'S ATTACHED, T1S1

BETA ORBINC SRBGAP
 0.000
 0.000 0.025

REFERENCE INFORMATION
 SREF 7.8800 36 IN.
 LREF 2.0280 INCHES
 BREF 4.4600 INCHES
 XMRP 4.2280 INCHES
 YMRP 0.0000 INCHES
 ZMRP 0.2480 INCHES
 SCALE 0.0040 SCALE

MACH 1.20